INDEX TO AUTHORS

A

Abbott, Lynn DeForrest, Jr. See GAEBLER and ABBOTT, 119

Abbott, W. O. See HOFFMAN, ABBOTT, KARR, and MILLER, lvii

Abramson, Harold A. See MOYER and ABRAMSON, 391

Allen, Frank Worthington. See EILER and ALLEN, 655

Almquist, H. J. See KLOSE, STOKSTAD, and ALMQUIST, 691

Anderson, Harriott I. Gates. See PERLZWEIG, KONDRITZER, and BRUCH, xcii

Andrews, James C., Andrews, Kathleen Crandall, and **Rutenber, Charles B.** Studies on cystinuria. The effect of administration of large doses of ascorbic acid and of methionine to the cystinuric, iii

Andrews, Kathleen Crandall. See ANDREWS, ANDREWS, and RUTENBER, iii

Arnold, Aaron. See STIRN and ARNOLD, cxvii

Avrin, Ira. See WILLIAMS, ERICKSON, AVRIN, BERNSTEIN, and MACY, 111

B

Babcock, Sidney H., Jr. See JUKES and BABCOCK, lxv

Bachman, C. See GURIN, BACHMAN, and WILSON, xlix

Bale, William F. See HAVEN, BALE, and LEFEVRE, lii

—. See HODGE and BALE, lvii

Balls, A. K., and **Matlack, M. B.** Mode of action of pancreatic lipase, 679

Barrett, H. M., Best, Charles H., and **Ridout, Jessie H.** The source of liver fat, iii

Barron, E. S. Guzman, and **Lyman, Carl M.** The oxidation and dismutation of pyruvic acid, iv

— and —. Studies on biological oxidations. X. The oxidation of unsaturated fatty acids with blood hemin and hemochromogens as catalysts, 229

—. See SIDWELL, MUNCH, BARRON, and HOGNESS, 335

Bartlett, Paul. See GAEBLER and BARTLETT, xl

Bates, Robert W., and **Riddle, Oscar.** Preparation of prolactin free from other pituitary hormones and preparation of a mixture of other pituitary hormones free from prolactin, v

Baum, Harry. See FISHBERG and BAUM, xxxv

Baumann, Emil J., and **Metzger, Nannette.** The iodine of pituitary and other tissues, vi

Beach, Eliot F., Erickson, Betty Nims, Bernstein, Samuel S., and **Williams, Harold H.** Basic amino acid content of posthemolytic residue, or stroma, of erythrocytes, vi

Beard, Howard H., and **Pizzolato, Philip.** The effect of parenteral injection of purines, methylated purines, and various drugs upon creatine-creatinine metabolism, vii

Beard, J. W., and **Wyckoff, Ralph W. G.** The pH stability of the papilloma virus protein, 461

Belfer, S. See Bradley and Belfer, xv

Bennett, Mary A. A quantitative study of the replaceability of cystine by various sulfur-containing amino acids in the diet of the albino rat, viii

Berg, Clarence P. See Correll, Berg, and Cowan, 151

—. See Totter and Berg, cxxii

Berger, J., and **Johnson, Marvin J.** Properties of some bacterial peptidase systems, ix

Bergman, A. J., and **Turner, C. W.** The biological assay of the carbohydrate metabolism hormone of the anterior pituitary, 471

Bergmann, Werner. The isolation and analysis of the epicuticular substance cuticulin of the silkworm, *Bombyx mori*, ix

Berman, Alvin. See Bull, 17

Bernhart, F. W. Microdetermination of the tyrosine content of protein hydrolysates, x

Bernheim, Frederick. The effect of alloxan on the oxidation of alcohol by various tissues, 741

— and **Bernheim, Mary L. C.** The action of *p*-aminophenol on the xanthine oxidase of liver, 307

— and —. The oxidation of mescaline and certain other amines, 317

Bernheim, Mary L. C. See Bernheim and Bernheim, 307, 317

Bernstein, Samuel S. See Beach, Erickson, Bernstein, and Williams, vi

—. See Williams, Erickson, Avrin, Bernstein, and Macy, 111

Best, Charles H. See Barrett, Best, and Ridout, iii

Bills, Charles E., Massengale, O. N., Hickman, K. C. D., and **Gray, E. LeB.** A new vitamin D in cod liver oil, x

— and **Wallenmeyer, J. C.** A photoelectric photometer for vitamin A determination, xi

Binkley, Francis. See Carter, Handler, Binkley, Fishback, Risser, and Weisiger, xx

Bird, H. R., and **Oleson, J. J.** Effectiveness of chondroitin as the anti-gizzard erosion factor required by chicks, xi

Blanchard, Ernest W. See Yeakel and Blanchard, 31

Blatherwick, N. R. See Larson, Blatherwick, Bradshaw, Ewing, and Sawyer, lxxiii

Blau, Nathan F. Determination of iodine in small amounts of thyroid substance, xii

Block, Richard J. Chemical studies on the neuroproteins. VI. Further evidence for sex differences in the amino acid composition of the brain proteins, xiii

Blunden, Harry. See Deuel, Butts, Hallman, Murray, and Blunden, 257

Bodansky, Aaron. Experimental liver injury; serum phosphatase activity in relation to other findings, xiv

Bollman, Jesse L. See Flock, Bollman, and Mann, xxxvi

Booher, Lela E., and **Lojkin, Mary.** Studies on the fractionation of a factor of the vitamin B complex in rice polishings, xiv

Bradley, H. C., and **Belfer, S.** Autolysis of the adrenal glands, xv

Bradshaw, Phoebe J. See Larson, Blatherwick, Bradshaw, Ewing, and Sawyer, lxxiii

Brand, Erwin. Growth response to sulfur amino acids, xv

—, **Cahill, George F.,** and **Slanetz, Charles A.** Canine cystinuria. IV, xvi

Bratton, A. Calvin. See McClendon and Bratton, 699

Bridwell, E. G. See Harger, Johnson, and Bridwell, p. 1

Brinkhous, K. M. See Seegers, Smith, Warner, and Brinkhous, 751

Brocklesby, H. N., and **Kuchel, C. C.** The adsorption of vitamin A by sodium and potassium soaps when formed *in situ* in highly potent oils, xvi

Brook, Theodore. See Friedemann, 161

Brown, Barker H. See Lewis and Brown, lxxv

Bruch, Ernst. See Perlzweig, Kondritzer, and Bruch, xcii

Bryan, W. Ray. See Knudson, Sturges, and Bryan, lxx

Bull, Henry B. Studies on surface denaturation of egg albumin, 17

Burke, J. C., and **McIntyre, A. R.** Growth-promoting pituitary extract in thiamine deficiency, xvii

Burr, George O. See Kass, Miller, and Burr, lxvi

Butt, Hugh R. See Keys and Butt, lxviii

Butts, Joseph S., Dunn, Max S., and **Hallman, Lois F.** Studies in amino acid metabolism. IV. Metabolism of *dl*-phenylalanine and *dl*-tyrosine in the normal rat, 711

—. See Deuel, Butts, Hallman, Murray, and Blunden, 257

C

Cahill, George F. See Brand, Cahill, and Slanetz, xvi

Cahill, William M., and **Jackson, Richard W.** Proof of syn-

thesis and configurational relationships of abrine, the naturally occurring amino-N-methyltryptophane, xviii

Caldwell, C. G., and **Hixon, R. M.** A study of the periodic acid oxidation of starches and dextrins as a means of determining molecular size, 595

Caldwell, M. L., and **Doebbeling, S. E.** A study of the influence of heavy water upon amylase formation in barley, 479

Carr, C. Jelleff, Forman, Sylvan E., and **Krantz, John C., Jr.** The metabolism of mannitol, polygalitol, and styracitol, xviii

Carruthers, Christopher. Vitamin E and experimental tumors, xix

Carter, Herbert E., Handler, Philip, Binkley, Francis, Fishback, Hamilton, Risser, William, and **Weisiger, James.** Amide metabolism, xx

Chaikoff, I. L. See Fries, Ruben, Perlman, and Chaikoff, 587

—. See Hassid and Chaikoff, 755

—. See Lorenz, Chaikoff, and Entenman, 577

Chanutin, Alfred. The distribution of body water in the partially nephrectomized rat, xx

—, **Hortenstine, J. C., Cole, W. S.,** and **Ludewig, Stephan.** Blood plasma proteins in rats following partial hepatectomy and laparotomy, 247

Chargaff, Erwin. Chemical properties of the lipid fractions of *Bacterium tumefaciens*, xxi

Chen, Yen Ping. See Freeman and Chen, 239

Christensen, Halvor N., and **Corley, Ralph C.** Observations on the alleged presence of lipid chlorine in the blood and tissues, 129

Christensen, W. Blake, Peterson, W. H., and **Johnson, Marvin J.** Properties of the lactic acid-racemizing enzyme (racemase) of *Clostridium butylicum*, xxi

Christman, Clarence C. See Levene and Christman, 77, 83, 607

Clarke, H. T. See Mazur and Clarke, 729

Clemence, Leroy W. See Raiziss, Severac, Moetsch, and Clemence, xcix

Clowes, G. H. A., Davis, W. W., and **Krahl, M. E.** Certain reactions of protein films prepared by the Langmuir method, xxii

Coffman, J. R. See Peterson, Hoskins, Coffman, and Koch, xciii

Coghill, Robert D., and **Creighton, Martha.** The non-specific nature of the carbohydrate portion of horse pseudoglobulin, xxiii

Cohen, Philip P., and **Stark, Irene E.** Hepatic ketogenesis and ketolysis in different species, xxiii

—. See Stark and Cohen, cxv

Cohn, Edwin J., Salter, William T., and **Ferry, Ronald M.** The amphoteric properties of globin and iodized globin, xxiv

Cohn, Waldo E., and **Greenberg, David M.** Studies in mineral metabolism with the aid of artificial radioactive isotopes. I. Absorption, distribution, and excretion of phosphorus, 185

Cole, Versa V., and **Harned, Ben K.** Further evidence of diabetic tendencies in a strain of rats, xxv

—. See HARNED and COLE, li

Cole, W. S. See CHANUTIN, HORTENSTINE, COLE, and LUDEWIG, 247

Colowick, Sidney P. See CORI, COLOWICK, and CORI, 375, 381

Conner, R. T. See KAO, CONNER, and SHERMAN, 221

Cook, Gladys M. See MITCHELL and COOK, lxxxvi

Coolidge, Thomas B. The mechanism of cytochrome action, 451

Cori, Carl F. See CORI, COLOWICK, and CORI, 375, 381

Cori, Gerty T., Colowick, Sidney P., and **Cori, Carl F.** The action of nucleotides in the disruptive phosphorylation of glycogen, 381

—, —, and —. The formation of glucose-1-phosphoric acid in extracts of mammalian tissues and of yeast, 375

Corley, Ralph C., Wolf, Paul A., and **Nielsen, Ernest K.** The amino acids essential for the adult animal, xxvi

—. See CHRISTENSEN and CORLEY, 129

Correll, John T., Berg, Clarence P., and **Cowan, Donald W.** Tryptophane metabolism. IX. The excretion of kynurenic acid in the bile and urine of the dog after the administration of kynurenic acid and *l*- and *dl*-tryptophane, 151

Cowan, Donald W. See CORRELL, BERG, and COWAN, 151

Cowgill, George R. See HORWITT and COWGILL, lxi

Cox, Warren M., Jr. See MUELLER and COX, lxxxviii

Creech, H. J. See FRANKS and CREECH, xxxviii

Creighton, Martha. See COGHILL and CREIGHTON, xxiii

Cullen, Glenn E. See HOLMES and CULLEN, lx

Cupps, P. T. See BERGMAN and TURNER, 471

Curtis, Lawrence C. See PUCHER, CURTIS, and VICKERY, 61, 71

Cutler, Hayden H. See POWER, WILDER, and CUTLER, xciv

D

Daft, Floyd Shelton, Robscheit-Robbins, Frieda S., and **Whipple, G. H.** Plasma protein given by vein and its influence upon body metabolism, 87

Dann, W. J., and **Evelyn, Kenneth A.** The quantitative es-

timation of vitamin A with the photoelectric colorimeter, xxvi

Darby, William J. See DAY and DARBY, xxviii

Darrow, Daniel C., and **Harrison, Harold E.** The chemical composition of tissues in adrenal insufficiency, xxvii

—. See YANNET and DARROW, 295

Davis, W. W. See CLOWES, DAVIS, and KRAHL, xxii

Day, Harry G., Stein, Harold J., and **McCollum, E. V.** The effect upon hematopoiesis of variations in the levels of calcium, phosphorus, and iron in the diet, xxviii

Day, Paul L., and **Darby, William J.** The riboflavin requirement for growth of the rat, xxviii

Dennis, Joe. See HENDRIX and DENNIS, liii

Deuel, Harry J., Jr., Butts, Joseph S., Hallman, Lois F., Murray, Sheila, and **Blunden, Harry.** Studies on ketosis. XIII. Diurnal changes in liver glycogen, 257

—, **Hallman, Lois F.,** and **Murray, Sheila.** Ketolysis *versus* antiketogenesis as an explanation for the action of carbohydrate on ketonuria, xxix

Dewitt, James. See SURE and DEWITT, cxx

Dill, D. B., Edwards, H. T., and **Robinson, S.** Metabolic adjustments, exercise, and age, xxx

Doebbeling, S. E. See CALDWELL and DOEBBELING, 479

Doisy, Edward A. See THAYER, MACCORQUODALE, MCKEE, and DOISY, cxx

—. See WESTERFELD, MACCORQUODALE, THAYER, and DOISY, cxxvi

Dorfman, Ralph I. The excretion of androgenic substances after the administration of testosterone, xxx

Doster-Virtue, Mildred E. See VIRTUE and DOSTER-VIRTUE, cxxiii

Drabkin, David L. A study of hemochromogen equilibria and a new nomenclature for hemoglobin derivatives, xxxi

Duff, F. L., Sheppard, Fay, and **Everett, Mark R.** Further studies of bromine oxidation of carbohydrates, xxxii

Dunn, Max S. See BUTTS, DUNN, and HALLMAN, 711

Dyer, Helen M. See DU VIGNEAUD, IRVING, DYER, and SEALOCK, 45

E

Ecker, E. E., Pillemer, L., Martiensen, E. W., and **Wertheimer, D.** Complement activity as influenced by certain chemical agents, 351

—, —, —, and —. Complement function as influenced by Szent-Györgyi's hexoxidase, 359

—. See PILLEMER, ECKER, MYERS, and MUNTWYLER, 365

Edsall, John T. Raman spectra of choline, betaine, sarcosine, glycylglycine, and related compounds, xxxiii

Edwards, H. T. See Dill, Edwards, and Robinson, xxx

Eiler, John J., and Allen, Frank Worthington. The catabolism of the purine nucleotides. I. The relation to glycolysis in the blood of the rabbit, 655

Elvehjem, C. A., Madden, Robert J., Strong, F. M., and Woolley, D. W. The isolation and identification of the anti-black tongue factor, 137

—. See Lipschitz, Potter, and Elvehjem, 267

Entenman, C. See Lorenz, Chaikoff, and Entenman, 577

Erickson, Betty Nims, Lee, Pearl, and Williams, Harold H. The lipid distribution of human blood platelets in health and disease, xxxiv

—. See Beach, Erickson, Bernstein, and Williams, vi

—. See Williams, Erickson, Avrin, Bernstein, and Macy, 111

Evelyn, Kenneth A., and Malloy, Helga Tait. The determination of methemoglobin and sulfhemoglobin with the photoelectric colorimeter, xxxiv

—. See Dann and Evelyn, xxvi

Everett, Mark R. See Duff, Sheppard, and Everett, xxxii

Everett, Mark R. See Hart, Sheppard, and Everett, lii

Ewing, Mary E. See Larson, Blatherwick, Bradshaw, Ewing, and Sawyer, lxxiii

Exton, William G., and Rose, Anton R. Chlorides in biological fluids, xxxv

F

Ferry, J. D. See Friend, Ferry, and Oncley, xxxix

Ferry, Ronald M. See Cohn, Salter, and Ferry, xxiv

Field, Henry, Jr. See Melnick and Field, lxxxiii

Fishback, Hamilton. See Carter, Handler, Binkley, Fishback, Risser, and Weisiger, xx

Fishberg, Ella H., and Baum, Harry. Methemoglobin formation by *Streptococcus viridans*, xxxv

Fishman, W. H. Studies on β-glucuronidase, xxxvi

Flock, Eunice, Bollman, Jesse L., and Mann, Frank C. The metabolism of pyruvic acid, xxxvi

Forbes, J. C. Studies on the prevention of liver cirrhosis by the subcutaneous injection of a liver preparation, xxxvii

Forman, Sylvan E. See Carr, Forman, and Krantz, xviii

Foster, G. L. See Rittenberg, Foster, and Schoenheimer, cii

—. See Schoenheimer, Foster, Rittenberg, and Ratner, cv

Foster, William C. See McClendon and Bratton, 699
—. See McClendon and Rice, lxxxi
Fox, Sidney W. The preparation of citrulline by hydrolysis of arginine, 687
Franks, W. R., and **Creech, H. J.** Chemo-antigens and carcinogenesis, xxxviii
—. See Hall and Franks, xlix
Freeman, Smith, and **Chen, Yen Ping.** The effect of jaundiced blood upon normal dogs, with special reference to the serum phosphatase, 239
French, C. S. The chromoproteins of photosynthetic bacteria, xxxviii
Friedemann, Theodore E. The identification and quantitative determination of volatile alcohols and acids, 161
Friend, D. G., Ferry, J. D., and **Oncley, J. L.** Dispersion of the dielectric constant of solutions of urinary proteins, xxxix
Fries, B. A., Ruben, S., Perlman, I., and **Chaikoff, I. L.** Radioactive phosphorus as an indicator of phospholipid metabolism. II. The rôle of the stomach, small intestine, and large intestine in phospholipid metabolism in the presence and absence of ingested fat, 587

G

Gaebler, Oliver Henry, and **Abbott, Lynn DeForrest, Jr.** Isolation of creatinine from serum ultrafiltrates, 119
Gaebler, Oliver Henry, and **Bartlett, Paul.** Effects of thyroxine and thyrotropic hormone on the weight and nitrogen metabolism of dogs, xl
Gersdorff, Charles E. F. See Jones and Gersdorff, lxiv
Gerstenberger, Henry J. Effect of parenteral administration of salt solutions on calcification *in vivo* of bones of monkeys made rachitic by light deficiency, xli
Gibson, R. B., and **Lowe, R. C.** Isolation of bilirubin from hog bile, xli
—. See Paul and Gibson, xci
Glick, David. Choline esterase and chemical mediation of nerve impulses, xlii
Goebel, Walther F., and **Reeves, R. E.** The synthesis of aldobionides and the relationship of the molecular rotations of acetylated derivatives of glucose, gentiobiose, and cellobiose to those of the corresponding uronic acid methyl esters, xlii
Goerner, Alfred, and **Goerner, M. Margaret.** Vitamin A and tumor mitochondria, 57
Goerner, M. Margaret. See Goerner and Goerner, 57
Golden, June B. See Sevringhaus, Heller, Lauson, and Golden, cvii
Gordon, William G. The availability of *d*- and *dl*-amino-N-methyltryptophane for growth, xliii
Gortner, Ross Aiken. See Jackson and Gortner, 719

Gray, E. LeB. See BILLS, MASSENGALE, HICKMAN, and GRAY, x

Green, Arda Alden. The globulin fractions of antipneumococcus serum, xliv

Greenberg, David M. See COHN and GREENBERG, 185

—. See LARSON and GREENBERG, 199

Greenstein, Jesse P., and Wyman, Jeffries, Jr. The polarity of aminocyclohexane carboxylic acids, xliv

Greenwald, Isidor. The dissociation of some calcium salts, xlv

Griffith, Wendell H. A toxic effect of sodium hippurate, xlvi

Guest, George Martin, and Rapoport, S. Studies of diphosphoglyceric acid in blood cells, xlvii

Guest, Gordon H., and McFarlane, William D. The formation of pyrrole by the dry distillation of proteins, xlvii

Guest, M. Mason. On the determination of glycogen in muscle, xlviii

Gunther, J. Kenneth, and Rose, William C. The relation of alanine to growth, 39

Gurin, Samuel, Bachman, C., and Wilson, D. Wright. The gonadotropic hormone of pregnancy urine, xlix

H

Haege, Lorraine. See PIERCE and HAEGE, xciii

Hall, G. E., and Franks, W. R. Physiological carcinogenesis, xlix

Hallman, Lois F. See BUTTS, DUNN, and HALLMAN, 711

—. See DEUEL, BUTTS, HALLMAN, MURRAY, and BLUNDEN, 257

—. See DEUEL, HALLMAN, and MURRAY, xxix

Hallstone, V. E. See DEUEL, BUTTS, HALLMAN, MURRAY, and BLUNDEN, 257

Handler, Philip. See CARTER, HANDLER, BINKLEY, FISHBACK, RISSER, and WEISIGER, xx

Hanes, Frederic M. See REISER and HANES, ci

Harger, R. N., Johnson, Steven L., and Bridwell, E. G. Detection and estimation of methanol, with results in human cases of methanol poisoning, p. 1

Harned, Ben K., and Cole, Versa V. The effect of physostigmine on the blood sugar of rats with demedullated adrenals, li

—. See COLE and HARNED, xxv

Harrison, Harold E. See DARROW and HARRISON, xxvii

Hart, J. P., Sheppard, Fay, and Everett, Mark R. Preparation of sugar acids from *d*-glucose, lii

Hartman, Ernest. See PIERCE and HARTMAN, xciv

Hassid, W. Z., and Chaikoff, I. L. The molecular structure of liver glycogen of the dog, 755

Haven, Frances L., Bale, William F., and **LeFevre, Marian L.** Comparative distribution in the white rat of radioactive phosphorus fed as sodium phosphate and injected as phospholipid, lii

Hawkins, W. B. See HOWLAND and HAWKINS, 99

Heard, E. Virginia, and **Lewis, Howard B.** The metabolism of sulfur. XXV. Dietary methionine as a factor related to the growth and composition of the hair of the young white rat, 203

Heller, Carl G. See SEVRINGHAUS, HELLER, LAUSON, and GOLDEN, cvii

Hendricks, Sterling B. See MARKLEY, SANDO, and HENDRICKS, 641

Hendrix, Byron M., and **Dennis, Joe.** Changes of nitrogen content brought about by denaturation of proteins, liii

Hepburn, Joseph S., Paxson, Newlin F., and **Rogers, Alan N.** Secretion of ingested sulfanilamide in human milk and in the urine of the infant, liv

Hess, W. C., and **Sullivan, M. X.** Cystinuria; the effect of feeding methionine and cysteine on the excretion of cystine, lv

van Heyningen, W. E. Preparation of deutero fatty acids, lv

Hickman, K. C. D. See BILLS, MASSENGALE, HICKMAN, and GRAY, x

Highman, Walter J., Jr. Hyperparathyroidism in experimental renal insufficiency, lvi

Hill, Edgar S. See PREISLER, HILL, RONZONI, and YOUNG, xcv

Hill, Elsie. See KOEHLER and HILL, lxx

Hill, Robert M. See SCHULTZ and HILL, cvi

Hisey, Alan. The denaturation of dried hemoglobin by molecular oxygen, lvi

Hixon, R. M. See CALDWELL and HIXON, 595

Hodge, Harold Carpenter, and **Bale, William F.** The molecular constitution of the calcium phosphates, lvii

Hoehn, Willard M. See KENDALL, MASON, HOEHN, and MCKENZIE, lxvii

Hoffman, O. D., Abbott, W. O., Karr, Walter G., and **Miller, T. G.** The fate of glucose solutions introduced into the stomach of humans, lvii

Hoffman, William S., and **Osgood, Bess.** A rapid photoelectric method for the microdetermination of sodium in biological fluids, lviii

Hogden, Corinne G. See PRICE, ROBINSON, and HOGDEN, xcvi

Hogness, T. R. See SIDWELL, MUNCH, BARRON, and HOGNESS, 335

—. See STOTZ, SIDWELL, and HOGNESS, cxviii

Hollander, Franklin, and **Saltzman, Max.** Characteristics of gastric secretion stimulated by pilocarpine, lix

Holmes, Frederic E., and **Cullen, Glenn E.** A method for the extraction of cholesterol from blood, lx

Hortenstine, J. C. See CHANUTIN, HORTENSTINE, COLE, and LUDEWIG, 247

Horvitz, Herman J. See ROBERTS and HORVITZ, cii

Horwitt, M. K. A simple glass electrode for the estimation of the pH of biological fluids under anaerobic conditions, lx

— and **Cowgill, George R.** Further investigations of the absorption of minute amounts of lead from the diet, lxi

Hoskins, W. H. See PETERSON, HOSKINS, COFFMAN, and KOCH, xciii

Howland, J. W., and **Hawkins, W. B.** Protein metabolism, protein interchange, and utilization in phlorhizinized dogs, 99

Hunt, Madison, and **du Vigneaud, Vincent.** The specificity of the β-alanine radical in relation to the depressor action of *l*-carnosine, lxi

I

Inman, W. Robert. See YOUNG and INMAN, cxxxi

Irvin, J. Logan. Further studies on octopine, lxii

Irving, George W., Jr., and **du Vigneaud, Vincent.** The differential migration of the pressor and oxytocic hormones in electrophoretic studies of the untreated press-juice of the posterior lobe of the pituitary gland, 485

Irving, George W., Jr. See DU VIGNEAUD, IRVING, DYER, and SEALOCK, 45

J

Jackson, Richard W. Kynurenic acid excretion by Carnivora, lxiii

—. See CAHILL and JACKSON, xviii

Jackson, Stanley M., and **Gortner, Ross Aiken.** A study of the proteins of the inactive and active mammary gland, 719

Johnson, Doris. See PARSONS and JOHNSON, xci

Johnson, Marvin J. See BERGER and JOHNSON, ix

—. See CHRISTENSEN, PETERSON, and JOHNSON, xxi

Johnson, Steven L. See HARGER, JOHNSON, and BRIDWELL, p. l

Jones, D. Breese, and **Gersdorff, Charles E. F.** Decystinized casein, lxiv

Jones, Maxwell. See STADIE and JONES, cxiv

Joseph, Norman R., and **Stadie, William C.** The simultaneous microdetermination of the total base and chloride of serum by electrodialysis, lxv

Judy, Frederick R. See WEST and JUDY, cxxv

Jukes, Thomas H., and **Babcock, Sidney H., Jr.** The antiparalytic vitamin of the chick, lxv

K

Kao, Hsueh-Chung, Conner, R. T., and **Sherman, H. C.** The availability of calcium from Chinese cabbage (*Brassica pekinensis,* Rupr.), 221

Karr, Walter G. See HOFFMAN, ABBOTT, KARR, and MILLER, lvii

Kass, J. P., Miller, E. S., and **Burr, George O.** A spectroscopic study of isomerism in the fatty acids, lxvi

Kassell, Beatrice. The metabolism of reduced lactalbumin in cystinuria, lxvi

Kendall, Edward C., Mason, Harold L., Hoehn, Willard M., and **McKenzie, Bernard F.** The chemical nature and physiological activity of cortin and crystalline cortin-like compounds, lxvii

Kerr, Stanley E. The carbohydrate metabolism of brain. VI. Isolation of glycogen, 443

Keston, Albert S., and **Rittenberg, D.** The stability of hydrogen and deuterium in amino acids, lxviii

Keys, Ancel, and **Butt, Hugh R.** Filtration processes in the extremities resulting from quiet standing, lxviii

Kirk, Esben. The concentration of lecithin, cephalin, ether-insoluble phosphatide, and cerebrosides in plasma and red blood cells of normal adults, 637

Kirk, Esben. A micromethod for approximate estimation of lecithin, cephalin, ether-insoluble phosphatide, and cerebrosides in plasma, red blood cells, and tissues, 623

—. A study on Kimmelstiel's procedure for titrimetric cerebroside determination, with description of an improved technique, 613

Kline, O. L., Tolle, Chester D., and **Nelson, E. M.** Polyneuritis as a criterion in vitamin B_1 determinations, lxix

Klose, A. A., Stokstad, E. L. R., and **Almquist, H. J.** The essential nature of arginine in the diet of the chick, 691

Knott, Leslie. See DEUEL, BUTTS, HALLMAN, MURRAY, and BLUNDEN, 257

Knudson, Arthur, Sturges, Stuart, and **Bryan, W. Ray.** Cholesterol content of skin, blood, and tumor tissue in rats irradiated with ultraviolet light, lxx

Koch, F. C. See PETERSON, HOSKINS, COFFMAN, and KOCH, xciii

Koehler, Alfred E., and **Hill, Elsie.** Comparison of the oral and intravenous glucose tolerance, lxx

Kohn, Henry I. Coenzyme stability in *Hemophilus parainfluenzæ,* lxxi

Kondritzer, Albert A. See PERLZWEIG, KONDRITZER, and BRUCH, xcii

Krahl, M. E. The acidic dissociation of substituted phenols in relation to the mechanism of their physiological action, lxxii

—. See CLOWES, DAVIS, and KRAHL, xxii

Krantz, John C. See CARR, FORMAN, and KRANTZ, xviii

Kraus-Ragins, Ida. The action of arginase on natural proteins and derived proteins obtained therefrom by trypsin and pepsin, 761

Kuchel, C. C. See BROCKLESBY and KUCHEL, xvi

Kuyper, Adrian C. The buffer action of unidentified urine constituents, 409

—. The quantitative precipitation of citric acid, 405

L

Lanford, Caroline Sherman, and **Sherman, H. C.** Further studies of the calcium content of the body as influenced by that of the food, lxxiii

Larson, Clarence E., and **Greenberg, David M.** The analysis of calcium in blood and other biological material by titration with ceric sulfate, 199

Larson, Hardy W., Blatherwick, N. R., Bradshaw, Phoebe J., Ewing, Mary E., and **Sawyer, Susan D.** The metabolism of *l*-xylulose, lxxiii

Lauffer, Max A., and **Stanley, W. M.** Stream double refraction of virus proteins, 507

Lauson, Henry. See SEVRINGHAUS, HELLER, LAUSON, and GOLDEN, cvii

Lavine, Theodore F. Some observations on the oxidation of cysteine and its intermediate oxidation products in aqueous solution, lxxiv

Lee, Pearl. See ERICKSON, LEE, and WILLIAMS, xxxiv

LeFevre, Marian L. See HAVEN, BALE, and LEFEVRE, lii

Levene, P. A., and **Christman, Clarence C.** The reduction of aminosorbitol hydrochloride with hydriodic acid, 77

— and —. The reduction of glucosaminic acid with hydrogen iodide in glacial acetic acid, 83

— and —. Synthesis of 5-phospho-*d*-arabinose, 607

Levy, Milton, and **Palmer, A. H.** Dipeptidase distribution in the cephalic region of the three day chick embryo, lxxiv

—. See PALMER and LEVY, xc

Lewis, Howard B., and **Brown, Barker H.** The cystine content of blood plasma after administration of cystine and methionine to rabbits, lxxv

—. See HEARD and LEWIS, 203

—. See PAPAGEORGE and LEWIS, 211

Lipschitz, M. A., Potter, V. R., and **Elvehjem, C. A.** The metabolism of pyruvic acid in vitamin B_1 deficiency and in inanition, 267

Lojkin, Mary. See BOOHER and LOJKIN, xiv

Looney, Joseph M. The effect of exercise on the blood gases, pH, and lactic acid content of the blood of normal and schizophrenic subjects, lxxvi

Lorenz, F. W., Chaikoff, I. L., and Entenman, C. Liver lipids of the laying and non-laying bird, 577

Loring, Hubert S. Nucleic acid from tobacco mosaic virus protein, lxxvi

Lowe, R. C. See Gibson and Lowe, xli

Luck, James Murray. The effect of potassium iodate on the liver proteins, lxxvii

Ludewig, Stephan. The blood plasma cholesterol and phospholipid phosphorus in control and partially nephrectomized rats, lxxviii

—. See Chanutin, Hortenstine, Cole, and Ludewig, 247

Lyman, Carl M. See Barron and Lyman, 229, iv

M

Macallum, A. Bruce. Pancreatic antagonism and synergism to insulin, lxxviii

MacCorquodale, D. W. See Thayer, MacCorquodale, McKee, and Doisy, cxx

—. See Westerfeld, MacCorquodale, Thayer, and Doisy, cxxvi

Macy, Icie G. See Williams, Erickson, Avrin, Bernstein, and Macy, 111

Madden, Robert J. See Elvehjem, Madden, Strong, and Woolley, 137

—. See Woolley, Strong, and Madden, cxxxi

Maddock, Stephen J. See Trimble and Maddock, cxxiii

Malloy, Helga Tait. See Evelyn and Malloy, xxxiv

Mangun, George, and **Myers, Victor C.** The creatine content of cardiac and voluntary muscle and its relation to phosphorus and potassium, lxxix

Mann, Frank C. See Flock, Bollman, and Mann, xxxvi

Markley, K. S., Sando, Charles E., and **Hendricks, Sterling B.** Petroleum ether-soluble and ether-soluble constituents of grape pomace, 641

Martiensen, E. W. See Ecker, Pillemer, Martiensen, and Wertheimer, 351, 359

Mason, Harold L. See Kendall, Mason, Hoehn, and McKenzie, lxvii

Massengale, O. N. See Bills, Massengale, Hickman, and Gray, x

Matlack, M. B. See Balls and Matlack, 679

Mazur, Abraham, and **Clarke, H. T.** The amino acids of certain marine algæ, 729

McCay, C. M., and **Tunison, A. V.** The toxicity of linseed meal, lxxx

McClendon, J. F., and **Bratton, A. Calvin.** A new method for determination of iodine in five

cubic centimeters of blood or other biological material, 699

McClendon, J. F., and **Rice, Carl O.** Blood iodine by the McClendon-Bratton method, lxxxi

McCollum, E. V. See DAY, STEIN, and MCCOLLUM, xxviii

McCullagh, D. Roy, Osborn, W. O., and **Osgard, Bertha.** Inactive androgenic material in human blood and urine, lxxxi

McEllroy, William S. See WILSON, STRICKLER, and MCELLROY, cxxix

McFarlane, William D. See GUEST and MCFARLANE, xlvii

McIntyre, A. R. See BURKE and MCINTYRE, xvii

McKee, R. W. See THAYER, MACCORQUODALE, MCKEE, and DOISY, cxx

McKenzie, Bernard F. See KENDALL, MASON, HOEHN, and MCKENZIE, lxvii

McMeekin, Thomas L. A study of the preparation and of the conditions for hydrolytic activity of asparaginase, lxxxii

Mehl, John W. Studies on the proteins of smooth muscle. I, lxxxiii

Melnick, Daniel, and **Field, Henry, Jr.** Studies on the chemical determination of vitamin B_1, lxxxiii

Metzger, Nannette. See BAUMANN and METZGER, vi

Meyer, Karl, and **Smyth, Elizabeth M.** The isolation of a mucoitin disulfuric acid from gastric mucin, lxxxiv

Michaelis, Leonor, and **Schwarzenbach, G.** The intermediate forms of oxidation-reduction of the flavins, 527

— and —. The semiquinone of lactoflavin, lxxxiv

Michel, Harry O. A study of sulfhemoglobin, lxxxv

Miller, E. S. See KASS, MILLER, and BURR, lxvi

Miller, T. G. See HOFFMAN, ABBOTT, KARR, and MILLER, lvii

Mitchell, Helen S., and **Cook, Gladys M.** The effect of type and amount of protein on the cataract-producing action of galactose, lxxxvi

Moetsch, J. C. See RAIZISS, SEVERAC, MOETSCH, and CLEMENCE, xcix

Morgulis, Sergius. Glycolysis and glutathione, 1

Morrison, Dempsie B., and **Williams, Edward F., Jr.** Acid properties of hemin and ferrihemic acid, lxxxvii

—. See WILLIAMS and MORRISON, cxxix

Morse, Minerva, and **Schlutz, Frederic W.** Effects of brief, vigorous exercise on the electrolyte pattern of the blood serum of the dog, lxxxvii

Moyer, Laurence S., and **Abramson, Harold A.** Electrokinetic aspects of surface chemistry. V. Electric mobility and titration curves of proteins and

their relationship to the calculation of radius and molecular weight, 391

Mueller, Arthur J., and **Cox, Warren M., Jr.** Rat milk fat as affected by lipids in the diet, lxxxviii

Mueller, J. Howard. The utilization of carnosine by the diphtheria bacillus, 421

Munch, R. H. See SIDWELL, MUNCH, BARRON, and HOGNESS, 335

Muntwyler, Edward. See PILLEMER, ECKER, MYERS, and MUNTWYLER, 365

Murray, Sheila. See DEUEL, BUTTS, HALLMAN, MURRAY, and BLUNDEN, 257

—. See DEUEL, HALLMAN, and MURRAY, xxix

Myers, Victor C. See MANGUN and MYERS, lxxix

—. See PILLEMER, ECKER, MYERS, and MUNTWYLER, 365

N

Nelson, E. M. See KLINE, TOLLE, and NELSON, lxix

Nielsen, Ernest K. See CORLEY, WOLF, and NIELSEN, xxvi

O

Oberst, Fred W. The determination of morphine in the urine of drug addicts, lxxxix

Oleson, J. J. See BIRD and OLESON, xi

Oncley, J. L. See FRIEND, FERRY, and ONCLEY, xxxix

Orten, James M. The reticulocyte as an index to hematopoiesis in the albino rat, lxxxix

Osborn, W. O. See MCCULLAGH, OSBORN, and OSGARD, lxxxi

Osgard, Bertha. See MCCULLAGH, OSBORN, and OSGARD, lxxxi

Osgood, Bess. See HOFFMAN and OSGOOD, lviii

P

Palmer, A. H., and **Levy, Milton.** The dipeptidase of chick embryo extracts, xc

—. See LEVY and PALMER, lxxiv

Papageorge, Evangeline, and **Lewis, Howard B.** Comparative studies of the metabolism of the amino acids. VII. Experimental alcaptonuria in the white rat, 211

Parsons, Helen T., and **Johnson, Doris.** New evidence that cooking egg white removes a harmful factor rather than creates a protective factor, xci

Patterson, Wilbur I., and **du Vigneaud, Vincent.** The synthesis of tetradeuterohomocystine and dideuteromethionine, 327

Paul, W. D., and **Gibson, R. B.** A case of diabetes mellitus with remissions, autogenous hypoglycemia, and tolerance for low blood sugar, xci

Paxson, Newlin F. See HEPBURN, PAXSON, and ROGERS, liv

Perlman, I. See FRIES, RUBEN, PERLMAN, and CHAIKOFF, 587

Perlzweig, William A., Kondritzer, Albert A., and **Bruch, Ernst.** The solubility precipitation patterns of the serum proteins, xcii

Peterson, D. H., Hoskins, W. H., Coffman, J. R., and **Koch, F. C.** The nature of the physiologically inactive form of androgens in human urine, xciii

Peterson, W. H. See CHRISTENSEN, PETERSON, and JOHNSON, xxi

—. See QUACKENBUSH, STEENBOCK, and PETERSON, xcviii

Pierce, H. B., and **Haege, Lorraine.** The rate of carbohydrate absorption from the rat intestine, xciii

— and **Hartman, Ernest.** Blood chemistry in human trichinosis, xciv

Pillemer, L., Ecker, E. E., Myers, Victor C., and **Muntwyler, Edward.** Chemical and immunological studies of the effects of radiant energy and of oxidation on crystalline urease, 365

—. See ECKER, PILLEMER, MARTIENSEN, and WERTHEIMER, 351, 359

Pizzolato, Philip. See BEARD and PIZZOLATO, vii

Potter, V. R. See LIPSCHITZ, POTTER, and ELVEHJEM, 267

Power, Marschelle H., and **Wakefield, E. G.** A volumetric benzidine method for the determination of inorganic and ethereal sulfate in serum, 665

Power, Marschelle H., Wilder, Russell M., and **Cutler, Hayden H.** The concentrations of sodium, potassium, and chloride in plasma and urine during short periods of low sodium and elevated potassium intake, xciv

Preisler, Paul W., Hill, Edgar S., Ronzoni, Ethel, and **Young, Leslie.** The oxidation-reduction potentials of the oxidation products of inositol, xcv

Price, J. Waide, Robinson, Howard W., and **Hogden, Corinne G.** The estimation of albumin and globulin in blood serum. II. Separation of fractions by centrifugation with the angle centrifuge, xcvi

Pucher, George W., Curtis, Lawrence C., and **Vickery, Hubert Bradford.** The red pigment of the root of the beet (*Beta vulgaris*). I. The preparation of betanin, 61

—, —, and —. II. A method to determine betanin, 71

Pugsley, L. I. The vitamin A and D content of halibut and sable-fish visceral oil, xcvii

Q

Quackenbush, F. W., and **Steenbock, H.** Acrodynia and the essential fatty acids, xcvii

—, —, and **Peterson, W. H.** The effects of acids upon carotenoids, xcviii

Quick, Armand J. Qualitative differences in the prothrombin, thromboplastin, and thrombin of different species, xcix

R

Raiziss, George W., Severac, M., Moetsch, J. C., and **Clemence, Leroy W.** Therapeutic effect of diaminodiphenyl sulfide, diaminodiphenyl sulfone, and related compounds in treatment of mice infected with *β-Streptococcus hæmolyticus,* xcix

Randall, Lowell O. Chemical topography of the brain, c

Rapoport, S. See Guest and Rapoport, xlvii

Ratner, S. See Schoenheimer, Foster, Rittenberg, and Ratner, cv

Reeves, R. E. See Goebel and Reeves, xlii

Reiner, Miriam. See Sobotka, Reiner, and Weiner, cxii

Reiser, Raymond, and **Hanes, Frederic M.** The effect of phospholipid ingestion upon the respiratory quotient in man, ci

Rice, Carl O. See McClendon and Rice, lxxxi

Riddle, Oscar. See Bates and Riddle, v

Ridout, Jessie H. See Barrett, Best, and Ridout, iii

Risser, William. See Carter, Handler, Binkley, Fishback, Risser, and Weisiger, xx

Rittenberg, D., Foster, G. L., and **Schoenheimer, Rudolf.** Biological studies on amino acids with the aid of deuterium as an indicator, cii

Rittenberg, D. See Keston and Rittenberg, lxviii

—. See Schoenheimer, Foster, Rittenberg, and Ratner, cv

Roberts, Richard G., and **Horvitz, Herman J.** The effect of ammonolyzed foods on the growth of albino rats, cii

Robinson, Howard W. See Price, Robinson, and Hogden, xcvi

Robinson, S. See Dill, Edwards, and Robinson, xxx

Robscheit-Robbins, Frieda S. See Daft, Robscheit-Robbins, and Whipple, 87

Roe, Joseph H. The determination of vitamin C as furfural through the 2,4-dinitrophenylhydrazine derivative of dehydroascorbic acid, with studies by this method, ciii

Rogers, Alan N. See Hepburn, Paxson, and Rogers, liv

Ronzoni, Ethel. See Preisler, Hill, Ronzoni, and Young, xcv

Rose, Anton R. See Exton and Rose, xxxv

Rose, William C. See Gunther and Rose, 39

Routh, Joseph I. The enzymatic hydrolysis of wool, civ

Ruben, S. See Fries, Ruben, Perlman, and Chaikoff, 587

Rutenber, Charles B. See ANDREWS, ANDREWS, and RUTENBER, iii

S

Salmon, W. D. The effect of certain oils in alleviating localized erythematous dermatitis (acrodynia or vitamin B_6 deficiency) in rats, civ

Salter, William T. See COHN, SALTER, and FERRY, xxiv

Saltzman, Max. See HOLLANDER and SALTZMAN, lix

Sando, Charles E. See MARKLEY, SANDO, and HENDRICKS, 641

Sawyer, Susan D. See LARSON, BLATHERWICK, BRADSHAW, EWING, and SAWYER, lxxiii

Schlutz, Frederic W. See MORSE and SCHLUTZ, lxxxvii

Schneider, H., and **Steenbock, H.** Differences in response to vitamin D_2 of rats on cereal low phosphorus diets and synthetic low phosphorus diets, cv

Schoenheimer, Rudolf, Foster, G. L., Rittenberg, D., and **Ratner, S.** Exploratory experiments on the application of the nitrogen isotope N^{15} to the study of intermediary metabolism, cv

—. See RITTENBERG, FOSTER, and SCHOENHEIMER, cii

Schønheyder, Fritz. The formation of coproporphyrin I and hemoglobin during embryonic life, 491

Schultz, Fred, and **Hill, Robert M.** The influence of environmental temperature on the body temperature-lowering properties of 1,5-diphenylpyrazoline-3-carboxylic acid, cvi

Schwarzenbach, G. See MICHAELIS and SCHWARZENBACH, 527, lxxxiv

Sealock, Robert Ridgely. See DU VIGNEAUD, IRVING, DYER, and SEALOCK, 45

Seegers, Walter H., Smith, H. P., Warner, E. D., and **Brinkhous, K. M.** The purification of prothrombin, 751

Severac, M. See RAIZISS, SEVERAC, MOETSCH, and CLEMENCE, xcix

Sevringhaus, Elmer L., Heller, Carl G., Lauson, Henry, and **Golden, June B.** Comparison and assay of estradiol, estrone, and estriol, cvii

Shear, M. J. Carcinogenic activity of some anthracene derivatives, cviii

Sheppard, Fay. See DUFF, SHEPPARD, and EVERETT, xxxii

—. See HART, SHEPPARD, and EVERETT, lii

Sherman, H. C. See KAO, CONNER, and SHERMAN, 221

—. See LANFORD and SHERMAN, lxxiii

Shipley, R. A. An investigation of the nature of the hypophyseal ketogenic principle, cix

Sidwell, A. E., Jr., Munch, R. H., Barron, E. S. Guzman, and **Hogness, T. R.** The salt effect on the hemoglobin-oxygen equilibrium, 335

—. See STOTZ, SIDWELL, and HOGNESS, cxviii

Simon, Elizabeth E., and **White, Abraham.** Production of a deficiency in sulfur-containing amino acids by the administration of iodoacetic acid, cix

Slanetz, Charles A. See BRAND, CAHILL, and SLANETZ, xvi

Smith, Elizabeth R. B. Thermodynamic properties of some amino acids and peptides in aqueous solution, cx

Smith, H. P. See SEEGERS, SMITH, WARNER, and BRINKHOUS, 751

Smith, Paul K. See WINKLER and SMITH, cxxx

Smyth, Elizabeth M. See MEYER and SMYTH, lxxxiv

Smythe, C. V. The aerobic utilization of pyruvic acid by bakers' yeast, cxi

Snell, E. E., and **Strong, F. M.** The influence of riboflavin and certain synthetic flavins on the growth of lactic acid bacteria, cxii

Sobotka, Harry, Reiner, Miriam, and **Weiner, S. B.** Sucrosuria, cxii

Sperry, Warren M., and **Stoyanoff, V. A.** Further studies of the enzymatic synthesis and hydrolysis of cholesterol esters in blood serum, cxiii

Spiegel-Adolf, Mona. Ultraspectrographic studies on melanins, cxiv

Stadie, William C., and **Jones, Maxwell.** The effect of prostigmine on the choline esterase activity of human and guinea pig muscle in relation to therapeutic mechanism of prostigmine in myasthenia gravis, cxiv

Stadie, William C. See JOSEPH and STADIE, lxv

Stanley, W. M. See LAUFFER and STANLEY, 507

Stark, Irene E., and **Cohen, Philip P.** Effect of malonic acid on the reduction of acetoacetic acid to β-hydroxybutyric acid in sliced and homogenized liver under aerobic and anaerobic conditions, cxv

—. See COHEN and STARK, xxiii

Steenbock, H. See QUACKENBUSH and STEENBOCK, xcvii

—. See QUACKENBUSH, STEENBOCK, and PETERSON, xcviii

—. See SCHNEIDER and STEENBOCK, cv

Stein, Harold J. See DAY, STEIN, and MCCOLLUM, xxviii

Steinhardt, Jacinto. Properties of hemoglobin and pepsin in solutions of urea and other amides, 543

—. Solubility behavior of crystalline pepsin and other proteins, cxv

Stekol, Jakob A. Glutathione in relation to growth of rats maintained on diets containing bromobenzene and naphthalene, cxvi

Stirn, F. E., and **Arnold, Aaron.** The relation of dietary fat to the vitamin B_1 requirement of growing rats, cxvii

Stokstad, E. L. R. See KLOSE, STOKSTAD, and ALMQUIST, 691

Stotz, Elmer, Sidwell, A. E., Jr., and Hogness, T. R. Spectrophotometric determination of the equilibria between oxidation-reduction systems; the potential of cytochrome C, cxviii

Stoyanoff, V. A. See SPERRY and STOYANOFF, cxiii

Strain, Harold H. Eschscholtzxanthin: a new xanthophyll from the petals of the California poppy, *Eschscholtzia californica*, 425

Strickler, H. S., and Wilson, D. A. The determination of blood iodine, cxviii

—. See WILSON, STRICKLER, and MCELLROY, cxxix

Strong, F. M. See ELVEHJEM, MADDEN, STRONG, and WOOLLEY, 137

—. See SNELL and STRONG, cxii

—. See WOOLLEY, STRONG, and MADDEN, cxxxi

Sturges, Stuart. See KNUDSON, STURGES, and BRYAN, lxx

Sullivan, M. X. Chemical studies in hypertension, cxix

—. See HESS and SULLIVAN, lv

Summerson, William H. The use of milk treated with hydrogen sulfide for the development of a copper deficiency in the rat, cxix

Sure, Barnett, and Dewitt, James. Oxygen uptake of rat tissues in avitaminosis, cxx

T

Tauber, Henry. The interaction of vitamin B_1 in enzymic reactions, 499

Thayer, Sidney A., MacCorquodale, D. W., McKee, R. W., and Doisy, Edward A. The biological assay of the antihemorrhagic factor (vitamin K), cxx

—. See WESTERFELD, MACCORQUODALE, THAYER, and DOISY, cxxvi

Thomas, Lloyd E. The stabilization of color in the determination of histidine by the diazo method and arginine by Weber's method (Sakaguchi reaction), cxxi

Tolle, Chester D. See KLINE, TOLLE, and NELSON, lxix

Totter, John R., and Berg, Clarence P. The influence of optical isomerism on the utilization of amino acids by the mouse for growth, cxxii

Trimble, Harry C., and Maddock, Stephen J. The effect of hepatectomy upon the non-protein nitrogen metabolism of Dalmatian dogs, cxxiii

Tunison, A. V. See MCCAY and TUNISON, lxxx

Turner, C. W. See BERGMAN and TURNER, 471

V

Velick, Sidney F., and White, Julius. The synthesis of dicholylcystine and related substances, cxxiii

Vickery, Hubert Bradford. See PUCHER, CURTIS, and VICKERY, 61, 71

du Vigneaud, Vincent, Irving, George W., Jr., Dyer, Helen M., and **Sealock, Robert Ridgely.** Electrophoresis of posterior pituitary gland preparations, 45

—. See HUNT and DU VIGNEAUD, lxi

—. See IRVING and DU VIGNEAUD, 485

—. See PATTERSON and DU VIGNEAUD, 327

Virtue, Robert W., and **Doster-Virtue, Mildred E.** Studies on cystamine in the dog, cxxiii

W

Wagner, B. See MORGULIS, 1

Wakefield, E. G. See POWER and WAKEFIELD, 665

Wallenmeyer, J. C. See BILLS and WALLENMEYER, xi

Wang, Cheng-Fah. See WU and WANG, 439

Warner, E. D. See SEEGERS, SMITH, WARNER, and BRINKHOUS, 751

Weber, C. J. A study of the guanidine-like substance in the blood from dogs having uranium nephritis, cxxiv

Weiner, S. B. See SOBOTKA, REINER, and WEINER, cxii

Weisiger, James. See CARTER, HANDLER, BINKLEY, FISHBACK, RISSER, and WEISIGER, xx

Wendel, William B. Catalytic reduction of methemoglobin to hemoglobin by methylene blue, cxxiv

Wertheimer, D. See ECKER, PILLEMER, MARTIENSEN, and WERTHEIMER, 351, 359

Wesson, Laurence G. Loss of the carbohydrate metabolism factor during the boiling of vegetables, cxxv

West, Edward S., and **Judy, Frederick R.** The destructive action of acidified candies upon tooth enamel, cxxv

Westerfeld, W. W., MacCorquodale, D. W., Thayer, Sidney A., and **Doisy, Edward A.** The ketonic estrogen of sow ovaries, cxxvi

Whipple, G. H. See DAFT, ROBSCHEIT-ROBBINS, and WHIPPLE, 87

White, Abraham. See SIMON and WHITE, cix

White, Julius. See VELICK and WHITE, cxxiii

White, Ralph V. See MCCLENDON and BRATTON, 699

—. See MCCLENDON and RICE, lxxxi

Whittier, E. O. Buffer intensities of milk and milk constituents. III. Buffer action of calcium citrate, 283

Wilder, Russell M. See POWER, WILDER, and CUTLER, xciv

Wiley, Frank H. The metabolism of β-naphthylamine, cxxvii

Wilkerson, Vernon A. The chemistry of human epidermis. IV. The effect of certain salts upon the ζ-potential of the stratum corneum, cxxviii

Williams, Edward F., Jr., and **Morrison, Dempsie B.** Mech-

anism of the globin-ferrihemate conjugation, cxxix

Williams, Edward F., Jr. See MORRISON and WILLIAMS, lxxxvii

Williams, Harold H., Erickson, Betty Nims, Avrin, Ira, Bernstein, Samuel S., and **Macy, Icie G.** Determination of cephalin in phospholipids by the estimation of choline, 111

—. See BEACH, ERICKSON, BERNSTEIN, and WILLIAMS, vi

—. See ERICKSON, LEE, and WILLIAMS, xxxiv

Wilson, D. A., Strickler, H. S., and **McEllroy, William S.** Urinary estrogens, cxxix

—. See STRICKLER and WILSON, cxviii

Wilson, D. Wright. See GURIN, BACHMAN, and WILSON, xlix

Winkler, Alexander W., and **Smith, Paul K.** The fate of intravenously injected potassium salts, cxxx

Wolf, Paul A. See CORLEY, WOLF, and NIELSEN, xxvi

Woolley, D. W., Strong, F. M., and **Madden, Robert J.** Activity of pyridine derivatives in the cure of canine black tongue, cxxxi

Woolley, D. W. See ELVEHJEM, MADDEN, STRONG, and WOOLLEY, 137

Wu, Hsien, and **Wang, Cheng-Fah.** Surface denaturation of egg albumin, 439

Wyckoff, Ralph W. G. See BEARD and WYCKOFF, 461

Wyman, Jeffries, Jr. See GREENSTEIN and WYMAN, xliv

Y

Yannet, Herman, and **Darrow, Daniel C.** The effect of growth on the distribution of water and electrolytes in brain, liver, and muscle, 295

Yeakel, Eleanor H., and **Blanchard, Ernest W.** The effect of adrenalectomy upon blood phospholipids and total fatty acids in the cat, 31

Young, E. Gordon, and **Inman, W. Robert.** The protein of the casing of salmon eggs, cxxxi

Young, Leslie. See PREISLER, HILL, RONZONI, and YOUNG, xcv

Z

Zapp, John A., Jr. Quantitative studies of carnosine and anserine in mammalian muscle, cxxxii

INDEX TO SUBJECTS

A

Abrine: Synthesis and configurational relationships (CAHILL and JACKSON) xviii

Acetoacetic acid: β-Hydroxybutyric acid, reduction in liver, malonic acid effect (STARK and COHEN) cxv

Acid(s): Carotenoids, effect (QUACKENBUSH, STEENBOCK, and PETERSON) xcviii

Volatile, identification and determination (FRIEDEMANN) 161

Acrodynia: Fatty acids, essential, relation (QUACKENBUSH and STEENBOCK) xcvii

Adrenal(s): Autolysis (BRADLEY and BELFER) xv

Demedullated, blood sugar, physostigmine effect (HARNED and COLE) li

Insufficiency, tissue effect (DARROW and HARRISON) xxvii

Adrenalectomy: Blood fatty acids, total, effect (YEAKEL and BLANCHARD) 31

— phospholipids, effect (YEAKEL and BLANCHARD) 31

Age: Metabolism effect (DILL, EDWARDS, and ROBINSON) xxx

Alanine: β-, radical, *l*-carnosine depressor action, relation (HUNT and DU VIGNEAUD) lxi

Alanine—*continued:*

Growth relation (GUNTHER and ROSE) 39

dl-Phenyl-, metabolism (BUTTS, DUNN, and HALLMAN) 711

Albumin: Blood serum, determination, angle centrifuge (PRICE, ROBINSON, and HOGDEN) xcvi

Egg, surface denaturation (BULL) 17

(WU and WANG) 439

Alcaptonuria: (PAPAGEORGE and LEWIS) 211

Alcohol(s): Oxidation, tissues, alloxan effect (BERNHEIM) 741

Volatile, identification and determination (FRIEDEMANN) 161

See also Methanol

Aldobionides: Synthesis (GOEBEL and REEVES) xlii

Algæ: Marine, amino acids (MAZUR and CLARKE) 729

Alloxan: Alcohol oxidation, tissues, effect (BERNHEIM) 741

Amide(s): Metabolism (CARTER, HANDLER, BINKLEY, FISHBACK, RISSER, and WEISIGER) xx

Solutions, hemoglobin and pepsin properties (STEINHARDT) 543

Amine(s): β-Naphthyl-, metabolism (WILEY) cxxvii

Oxidation (BERNHEIM and BERNHEIM) 317

Amino acid(s): Algæ, marine (Mazur and Clarke) 729
Basic, blood cell, red, posthemolytic residue (Beach, Erickson, Bernstein, and Williams) vi
Brain proteins, sex differences (Block) xiii
Deuterium as indicator (Rittenberg, Foster, and Schoenheimer) cii
— stability (Keston and Rittenberg) lxviii
Essential, adult (Corley, Wolf, and Nielsen) xxvi
Growth utilization, isomerism, optical, effect (Totter and Berg) cxxii
Hydrogen stability (Keston and Rittenberg) lxviii
Metabolism (Butts, Dunn, and Hallman) 711
(Papageorge and Lewis) 211
Raman spectrum (Edsall) xxxiii
Solutions, thermodynamic properties (Smith) cx
Sulfur-containing, cystine replaceability, diet (Bennett) viii
—, growth effect (Brand) xv
—, iodoacetic acid effect on (Simon and White) cix
Aminocyclohexane: Carboxylic acids, polarity (Greenstein and Wyman) xliv
Amino-N-methyltryptophane: *d*- and *dl*-, growth effect (Gordon) xliii
Synthesis and configurational relationships (Cahill and Jackson) xviii
Aminophenol: *p*-, liver xanthine oxidase, action (Bernheim and Bernheim) 307
Aminosorbitol hydrochloride: Hydriodic acid, reduction (Levene and Christman) 77
Amylase: Formation, barley, heavy water influence (Caldwell and Doebbeling) 479
Androgenic substance(s): Excretion, testosterone effect (Dorfman) xxx
Inactive, blood and urine (McCullagh, Osborn, and Osgard) lxxxi
—, urine, nature (Peterson, Hoskins, Coffman, and Koch) xciii
Anserine: Muscle, determination (Zapp) cxxxii
Anthracene: Derivatives, carcinogenic activity (Shear) cviii
Antigens: Chemo-, carcinogenesis and (Franks and Creech) xxxviii
Antihemorrhage: Factor, biological assay (Thayer, MacCorquodale, McKee, and Doisy) cxx
Apparatus: Colorimeter, photoelectric, vitamin A determination (Dann and Evelyn) xxvi
Glass electrode, hydrogen ion concentration determination, biological fluids (Horwitt) lx
Photoelectric photometer, vitamin A determination (Bills and Wallenmeyer) xi

Arabinose: 5-Phospho-*d*-, synthesis (LEVENE and CHRISTMAN) 607
Arginase: Proteins, action (KRAUS-RAGINS) 761
Arginine: Citrulline preparation, hydrolysis (FOX) 687
Determination, color stabilization (THOMAS) cxxi
Dietary essential, chick (KLOSE, STOKSTAD, and ALMQUIST) 691
Ascorbic acid: Cystinuria, effect (ANDREWS, ANDREWS, and RUTENBER) iii
Asparaginase: Activity, hydrolytic (MCMEEKIN) lxxxii
Preparation (MCMEEKIN) lxxxii
Avitaminosis: Oxygen uptake, tissues (SURE and DEWITT) cxx

B

Bacteria: Lactic acid, riboflavin and synthetic flavins, growth effect (SNELL and STRONG) cxii
Peptidase systems, properties (BERGER and JOHNSON) ix
Photosynthetic, chromoproteins (FRENCH) xxxviii
Bacterium tumefaciens: Lipid fractions, chemistry (CHARGAFF) xxi
Barley: Amylase formation, heavy water influence (CALDWELL and DOEBBELING) 479
Base: Total, blood serum, chloride and, microdetermination, simultaneous (JOSEPH and STADIE) lxv
Beet: Root pigment, red, determination (PUCHER, CURTIS, and VICKERY) 71
— —, —, preparation (PUCHER, CURTIS, and VICKERY) 61
Betaine: Raman spectrum (EDSALL) xxxiii
Betanin: Determination (PUCHER, CURTIS, and VICKERY) 71
Preparation (PUCHER, CURTIS, and VICKERY) 61
Bile: Bilirubin, hog (GIBSON and LOWE) xli
Kynurenic acid excretion, kynurenic acid and *l*- and *dl*-tryptophane administration effect (CORRELL, BERG, and COWAN) 151
Bilirubin: Bile, hog (GIBSON and LOWE) xli
Biological fluids: Chloride determination (EXTON and ROSE) xxxv
Black tongue: Anti-, factor, identification (ELVEHJEM, MADDEN, STRONG, and WOOLLEY) 137
Pyridine derivatives, effect (WOOLLEY, STRONG, and MADDEN) cxxxi
Blood: Androgenic material, inactive (MCCULLAGH, OSBORN, and OSGARD) lxxxi
Gas, exercise effect (LOONEY) lxxvi
Glycolysis, purine nucleotide catabolism, relation (EILER and ALLEN) 655
Jaundiced, blood serum phosphatase effect (FREEMAN and CHEN) 239

Blood—*continued:*
Phospholipids, adrenalectomy effect (YEAKEL and BLANCHARD) 31
Platelets, lipid distribution (ERICKSON, LEE, and WILLIAMS) xxxiv
Trichinosis, chemistry (PIERCE and HARTMAN) xciv
Blood cell: Red, posthemolytic residue, basic amino acids (BEACH, ERICKSON, BERNSTEIN, and WILLIAMS) vi
See also Reticulocyte
Blood plasma: Proteins, hepatectomy and laparotomy effect (CHANUTIN, HORTENSTINE, COLE, and LUDEWIG) 247
—, metabolism, injection effect (DAFT, ROBSCHEIT-ROBBINS, and WHIPPLE) 87
Blood serum: Base, total, and chloride, microdetermination, simultaneous (JOSEPH and STADIE) lxv
Electrolytes, exercise effect (MORSE and SCHLUTZ) lxxxvii
Ultrafiltrates, creatinine isolation (GAEBLER and ABBOTT) 119
Blood sugar: Adrenals, demedullated, physostigmine effect (HARNED and COLE) li
Low, diabetes (PAUL and GIBSON) xci
Bone: Calcification, rickets, salt solutions, effect (GERSTENBERGER) xli
Brain: Carbohydrate metabolism (KERR) 443
Chemistry (RANDALL) c
Brain—*continued:*
Glycogen, isolation (KERR) 443
Proteins, amino acids, sex differences (BLOCK) xiii
Water and electrolytes, growth effect (YANNET and DARROW) 295
Bromine: Carbohydrate oxidation (DUFF, SHEPPARD, and EVERETT) xxxii
Bromobenzene: Dietary, glutathione, growth effect (STEKOL) cxvi

C

Cabbage: Chinese, calcium availability (KAO, CONNER, and SHERMAN) 221
Calcium: Biological material, determination, ceric sulfate titration (LARSON and GREENBERG) 199
Blood, determination, ceric sulfate titration (LARSON and GREENBERG) 199
Body, food calcium, effect (LANFORD and SHERMAN) lxxiii
Cabbage, Chinese, availability (KAO, CONNER, and SHERMAN) 221
Dietary, hematopoiesis effect (DAY, STEIN, and MCCOLLUM) xxviii
Calcium citrate: Milk, buffer action (WHITTIER) 283
Calcium phosphate(s): Molecular constitution (HODGE and BALE) lvii
Calcium salt(s): Dissociation (GREENWALD) xlv
Candy: Acidified, enamel effect (WEST and JUDY) cxxv

Carbohydrate(s): Absorption, intestine (PIERCE and HAEGE) xciii
Action, ketonuria, ketolysis effect (DEUEL, HALLMAN, and MURRAY) xxix
Bromine oxidation (DUFF, SHEPPARD, and EVERETT) xxxii
Metabolism, brain (KERR) 443
— factor, vegetables, boiling effect (WESSON) cxxv
— hormone, anterior pituitary, assay (BERGMAN and TURNER) 471
Pseudoglobulin, nature (COGHILL and CREIGHTON) xxiii
Carboxylic acid(s): Aminocyclohexane, polarity (GREENSTEIN and WYMAN) xliv
1, 5- Diphenylpyrazoline -3-, body temperature, environmental temperature effect (SCHULTZ and HILL) cvi
Carcinogenesis: Chemo-antigens, and (FRANKS and CREECH) xxxviii
Physiological (HALL and FRANKS) xlix
Carcinogenic activity: Anthracene derivatives (SHEAR) cviii
Carnivora: Kynurenic acid excretion (JACKSON) lxiii
Carnosine: Diphtheria bacillus, utilization (MUELLER) 421
l-, depressor action, β-alanine radical, effect (HUNT and DU VIGNEAUD) lxi
Muscle, determination (ZAPP) cxxxxii
Carotenoids: Acids, effect (QUACKENBUSH, STEENBOCK, and PETERSON) xcviii
Casein: Decystinized (JONES and GERSDORFF) lxiv
Cataract: Galactose-producing action, protein effect (MITCHELL and COOK) lxxxvi
Cellobiose: Acetyl derivatives, uronic acid methyl esters, molecular rotations, relationship (GOEBEL and REEVES) xlii
Cephalin: Blood plasma and red blood cells, adults (KIRK) 637
— —, red blood cells, and tissues, microdetermination (KIRK) 623
Phospholipids, choline estimation, determination (WILLIAMS, ERICKSON, AVRIN, BERNSTEIN, and MACY) 111
Cerebroside(s): Blood plasma and red blood cells, adults (KIRK) 637
— —, red blood cells, and tissues, microdetermination (KIRK) 623
Determination, titrimetric (KIRK) 613
Ceric sulfate: Calcium determination, titration (LARSON and GREENBERG) 199
Chick: Anti-gizzard erosion factor, chondroitin effect (BIRD and OLESON) xi
Antiparalytic vitamin (JUKES and BABCOCK) lxv
Arginine, dietary essential (KLOSE, STOKSTAD, and ALMQUIST) 691

Chloride(s): Biological fluids, determination (EXTON and ROSE) xxxv
Blood plasma, sodium and potassium intake effect (POWER, WILDER, and CUTLER) xciv
— serum, total base and, microdetermination, simultaneous (JOSEPH and STADIE) lxv
Urine, sodium and potassium intake effect (POWER, WILDER, and CUTLER) xciv
Chlorine: Lipid, blood and tissues (CHRISTENSEN and CORLEY) 129
Cholesterol: Blood, extraction (HOLMES and CULLEN) lx
— plasma, normal and nephrectomized rats (LUDEWIG) lxxviii
—, ultraviolet light irradiation, effect (KNUDSON, STURGES, and BRYAN) lxx
Esters, blood serum, enzyme synthesis and hydrolysis (SPERRY and STOYANOFF) cxiii
Skin, ultraviolet light irradiation, effect (KNUDSON, STURGES, and BRYAN) lxx
Tumor tissue, ultraviolet light irradiation, effect (KNUDSON, STURGES, and BRYAN) lxx
Choline: Determination, phospholipid cephalin determination by (WILLIAMS, ERICKSON, AVRIN, BERNSTEIN, and MACY) 111
Esterase, muscle, activity, prostigmine effect (STADIE and JONES) cxiv
Choline—*continued:*
Esterase, nerve impulses, effect (GLICK) xlii
Raman spectrum (EDSALL) xxxiii
Chondroitin: Anti-gizzard erosion factor, chick, effect (BIRD and OLESON) xi
Chromoproteins: Bacteria, photosynthetic (FRENCH) xxxviii
Citric acid: Precipitation, quantitative (KUYPER) 405
Citrulline: Arginine hydrolysis, preparation (FOX) 687
Clostridium butylicum: Racemase (CHRISTENSEN, PETERSON, and JOHNSON) xxi
Cod liver oil: Vitamin D, new (BILLS, MASSENGALE, HICKMAN, and GRAY) x
Coenzyme: *Hemophilus parainfluenzæ*, stability (KOHN) lxxi
Colorimeter: Photoelectric, methemoglobin and sulfhemoglobin determination (EVELYN and MALLOY) xxxiv
—, vitamin A determination (DANN and EVELYN) xxvi
Complement: Activity, chemical agents, effect (ECKER, PILLEMER, MARTIENSEN, and WERTHEIMER) 351
Function, hexoxidase effect (ECKER, PILLEMER, MARTIENSEN, and WERTHEIMER) 359
Copper: Deficiency, hydrogen sulfide-treated milk, development (SUMMERSON) cxix
Coproporphyrin: I, embryo, formation (SCHØNHEYDER) 491

Cortin: Chemistry and physiological activity (KENDALL, MASON, HOEHN, and MCKENZIE) lxvii
-Like compounds, crystalline, chemistry and physiological activity (KENDALL, MASON, HOEHN, and MCKENZIE) lxvii
Creatine: -Creatinine metabolism, purines and drugs, injection effect (BEARD and PIZZOLATO) vii
Muscle, phosphorus and potassium relation (MANGUN and MYERS) lxxix
Creatinine: Blood serum ultrafiltrates, isolation (GAEBLER and ABBOTT) 119
Creatine-, metabolism, purines and drugs, injection effect (BEARD and PIZZOLATO) vii
Cuticulin: Silkworm, isolation and analysis (BERGMANN) ix
Cyclohexane: Amino-, carboxylic acids, polarity (GREENSTEIN and WYMAN) xliv
Cystamine: Fate, dog (VIRTUE and DOSTER-VIRTUE) cxxiii
Cysteine: Cystinuria, administration effect (HESS and SULLIVAN) lv
Oxidation (LAVINE) lxxiv
— products, intermediate (LAVINE) lxxiv
Cystine: Blood plasma, cystine administration effect (LEWIS and BROWN) lxxv
— —, methionine administration effect (LEWIS and BROWN) lxxv
Cystine—*continued:*
Dicholyl-, and related substances, synthesis (VELICK and WHITE) cxxiii
Sulfur-containing amino acids, diet, replaceability (BENNETT) viii
Tetradeuterohomo-, synthesis (PATTERSON and DU VIGNEAUD) 327
Cystinuria: Ascorbic acid administration, effect (ANDREWS, ANDREWS, and RUTENBER) iii
Cysteine administration, effect (HESS and SULLIVAN) lv
Dog (BRAND, CAHILL, and SLANETZ) xvi
Lactalbumin, reduced, metabolism (KASSELL) lxvi
Methionine administration, effect (ANDREWS, ANDREWS, and RUTENBER) iii
(HESS and SULLIVAN) lv
Cytochrome: Action, mechanism (COOLIDGE) 451
C, potential (STOTZ, SIDWELL, and HOGNESS) cxviii

D

Dermatitis: Erythematous, dietary oils, effect (SALMON) civ
See also Acrodynia
Deuterium: Amino acids, indicator (RITTENBERG, FOSTER, and SCHOENHEIMER) cii
— —, stability in (KESTON and RITTENBERG) lxviii
Dextrin(s): Molecular size determination, periodic acid oxidation (CALDWELL and HIXON) 595

Diabetes: Blood sugar, low, tolerance (PAUL and GIBSON) xci
Hypoglycemia, autogenous (PAUL and GIBSON) xci
Remissions (PAUL and GIBSON) xci
Tendency, rats (COLE and HARNED) xxv
Diaminodiphenyl sulfide: -Related compounds, *β-Streptococcus hæmoliticus*, effect (RAIZISS, SEVERAC, MOETSCH, and CLEMENCE) xcix
β-Streptococcus hæmolyticus, effect (RAIZISS, SEVERAC, MOETSCH, and CLEMENCE) xcix
Diaminodiphenyl sulfone: -Related compounds, *β-Streptococcus hæmolyticus*, effect (RAIZISS, SEVERAC, MOETSCH, and CLEMENCE) xcix
β-Streptococcus hæmolyticus, effect (RAIZISS, SEVERAC, MOETSCH, and CLEMENCE) xcix
Dicholylcystine: -Related substances, synthesis (VELICK and WHITE) cxxiii
Synthesis (VELICK and WHITE) cxxiii
Dideuteromethionine: Synthesis (PATTERSON and DU VIGNEAUD) 327
Dipeptidase: Embryo, cephalic region, chick (LEVY and PALMER) lxxiv
— extracts, chick (PALMER and LEVY) xc
1,5-Diphenylpyrazoline-3-carboxylic acid: Body temperature, environmental temperature effect (SCHULTZ and HILL) cvi
Diphosphoglyceric acid: Blood cells (GUEST and RAPOPORT) xlvii
Diphtheria bacillus: Carnosine utilization (MUELLER) 421

E

Egg: Albumin, surface denaturation (BULL) 17
(WU and WANG) 439
Salmon, casing, protein (YOUNG and INMAN) cxxxi
White, cooking effect (PARSONS and JOHNSON) xci
Electrode: Glass, hydrogen ion concentration determination, biological fluids (HORWITT) lx
Electrokinetics: Surface chemistry (MOYER and ABRAMSON) 391
Electrolyte(s): Blood serum, exercise effect (MORSE and SCHLUTZ) lxxxvii
Water and, brain, liver, and muscle, growth effect (YANNET and DARROW) 295
Embryo: Chick, extracts, dipeptidase (PALMER and LEVY) xc
Coproporphyrin I formation (SCHØNHEYDER) 491
Dipeptidase, cephalic region, chick (LEVY and PALMER) lxxiv
Hemoglobin formation (SCHØNHEYDER) 491

Enamel: Candy, acidified, effect (West and Judy) cxxv
Enzyme(s): Blood serum cholesterol esters, synthesis and hydrolysis (Sperry and Stoyanoff) cxiii
Hydrolysis, wool (Routh) civ
Reactions, vitamin B_1, interaction (Tauber) 499
See also Arginase, Asparaginase, Dipeptidase, Esterase, β-Glucuronidase, Hexoxidase, Lipase, Oxidase, Pepsin, Peptidase, Phosphatase, Racemase, Trypsin, Urease
Epidermis: Stratum corneum, ζ-potential, salts, effect (Wilkerson) cxxviii
Erythrocyte: *See* Blood cell, red
Eschscholtzxanthin: Poppy, California, petals (Strain) 425
Esterase: Choline, muscle, activity, prostigmine effect (Stadie and Jones) cxiv
—, nerve impulses, effect (Glick) xlii
Estradiol: Estrone, estriol, and, comparison (Sevringhaus, Heller, Lauson, and Golden) cvii
Estriol: Estradiol, estrone, and, comparison (Sevringhaus, Heller, Lauson, and Golden) cvii
Estrogen(s): Ketonic, ovary (Westerfeld, MacCorquodale, Thayer, and Doisy) cxxvi
Urine (Wilson, Strickler, and McEllroy) cxxix
Estrone: Estradiol, estriol, and, comparison (Sevringhaus, Heller, Lauson, and Golden) cvii
Exercise: Blood gases, effect (Looney) lxxvi
— hydrogen ion concentration, effect (Looney) lxxvi
— lactic acid, effect (Looney) lxxvi
— serum electrolytes, effect (Morse and Schlutz) lxxxvii
Metabolism effect (Dill, Edwards, and Robinson) xxx

F

Fat(s): Diet, vitamin B_1 growth requirement, relation (Stirn and Arnold) cxvii
Ingested, phospholipid metabolism, stomach and intestine, rôle (Fries, Ruben, Perlman, and Chaikoff) 587
Liver, source (Barrett, Best, and Ridout) iii
Milk, diet lipids, effect (Mueller and Cox) lxxxviii
Fatty acid(s): Deutero, preparation (van Heyningen) lv
Essential, acrodynia, relation (Quackenbush and Steenbock) xcvii
Isomerism, spectroscopy (Kass, Miller, and Burr) lxvi
Total, blood, adrenalectomy effect (Yeakel and Blanchard) 31
Unsaturated, oxidation, blood hemin and hemochromogens as catalysts (Barron and Lyman) 229

Ferrihemate: Globin-, conjugation, mechanism (WILLIAMS and MORRISON) cxxix
Ferrihemic acid: Properties (MORRISON and WILLIAMS) lxxxvii
Filtration process: Extremities, standing effect (KEYS and BUTT) lxviii
Fish: Sable-. *See* Sable-fish
Flavin(s): Lacto-, semiquinone (MICHAELIS and SCHWARZENBACH) lxxxiv
Oxidation-reduction, intermediate forms (MICHAELIS and SCHWARZENBACH) 527
Ribo-, growth requirement (DAY and DARBY) xxviii
—, lactic acid bacteria, growth effect (SNELL and STRONG) cxii
Synthetic, lactic acid bacteria, growth effect (SNELL and STRONG) cxii
Food: Ammonolyzed, growth effect (ROBERTS and HORVITZ) cii
Furfural: Dehydroascorbic acid derivative, vitamin C determination as (ROE) ciii

G

Galactose: Cataract-producing action, protein effect (MITCHELL and COOK) lxxxvi
Gas: Blood, exercise effect (LOONEY) lxxvi
Gentiobiose: Acetyl derivatives, uronic acid methyl esters, molecular rotations, relationship (GOEBEL and REEVES) xlii
Gizzard: Anti-erosion factor, chick, chondroitin effect (BIRD and OLESON) xi
Globin: Amphoteric properties (COHN, SALTER, and FERRY) xxiv
-Ferrihemate conjugation, mechanism (WILLIAMS and MORRISON) cxxix
Iodized, amphoteric properties (COHN, SALTER, and FERRY) xxiv
Globulin(s): Antipneumococcus serum (GREEN) xliv
Blood serum, determination, angle centrifuge (PRICE, ROBINSON, and HOGDEN) xcvi
Pseudo-, carbohydrate, nature (COGHILL and CREIGHTON) xxiii
Glucosaminic acid: Hydrogen iodide, reduction (LEVENE and CHRISTMAN) 83
Glucose: Acetyl derivatives, uronic acid methyl esters, molecular rotations, relationship (GOEBEL and REEVES) xlii
d-, sugar acids, preparation (HART, SHEPPARD, and EVERETT) lii
Stomach, fate (HOFFMAN, ABBOTT, KARR, and MILLER) lvii
Tolerance, oral and intravenous (KOEHLER and HILL) lxx
Glucose-1-phosphoric acid: Tissue, mammalian, extracts, formation (CORI, COLOWICK, and CORI) 375
Yeast extract, formation (CORI, COLOWICK, and CORI) 375

Glucuronidase: β- (FISHMAN) xxxvi
Glutathione: Bromobenzene-containing diets, growth effect (STEKOL) cxvi
Glycolysis and (MORGULIS) 1
Naphthalene-containing diets, growth effect (STEKOL) cxvi
Glyceric acid: Diphospho-, blood cells (GUEST and RAPOPORT) xlvii
Glycine: Glycyl-, Raman spectrum (EDSALL) xxxiii
Glycogen: Brain, isolation (KERR) 443
Liver, diurnal changes (DEUEL, BUTTS, HALLMAN, MURRAY, and BLUNDEN) 257
—, molecular structure (HASSID and CHAIKOFF) 755
Muscle, determination (GUEST) xlviii
Phosphorylation, nucleotide action (CORI, COLOWICK, and CORI) 381
Glycolysis: Blood, purine nucleotide catabolism, relation (EILER and ALLEN) 655
Glutathione and (MORGULIS) 1
Glycylglycine: Raman spectrum (EDSALL) xxxiii
Gonadotropic hormone: Pregnancy urine (GURIN, BACHMAN, and WILSON) xlix
Grape: Pomace, ether-soluble and petroleum ether-soluble constituents (MARKLEY, SANDO, and HENDRICKS) 641
Growth: Alanine relation (GUNTHER and ROSE) 39
Growth—*continued:*
Amino acid isomerism, optical, effect (TOTTER and BERG) cxxii
d-Amino-N - methyltryptophane effect (GORDON) xliii
dl-Amino-N - methyltryptophane effect (GORDON) xliii
Ammonolyzed foods, effect (ROBERTS and HORVITZ) cii
Glutathione, bromobenzene- and naphthalene-containing diets, effect (STEKOL) cxvi
Methionine effect (HEARD and LEWIS) 203
-Promoting pituitary extract, thiamine deficiency, effect (BURKE and MCINTYRE) xvii
Riboflavin requirement (DAY and DARBY) xxviii
Sulfur-containing amino acids, effect (BRAND) xv
Vitamin B_1 requirement, diet fat relation (STIRN and ARNOLD) cxvii
Water and electrolytes, brain, liver, and muscle, effect (YANNET and DARROW) 295
Guanidine: -Like substance, blood, uranium nephritis (WEBER) cxxiv

H

Hair: Methionine, dietary, effect (HEARD and LEWIS) 203
Halibut: Viscera oil, vitamins A and D (PUGSLEY) xcvii

Hematopoiesis: Dietary calcium, phosphorus, and iron, effect (Day, Stein, and McCollum) xxviii
Reticulocyte, index (Orten) lxxxix
Hemin: Acid properties (Morrison and Williams) lxxxvii
Blood, fatty acids, unsaturated, oxidation, catalyst (Barron and Lyman) 229
Hemochromogen(s): Blood, fatty acids, unsaturated, oxidation, catalysts (Barron and Lyman) 229
Equilibria (Drabkin) xxxi
Hemoglobin: Amide solutions, properties (Steinhardt) 543
Derivatives, nomenclature (Drabkin) xxxi
Dried, denaturation, oxygen (Hisey) lvi
Embryo, formation (Schønheyder) 491
Methemoglobin reduction, methylene blue (Wendel) cxxiv
-Oxygen equilibrium, salt effect (Sidwell, Munch, Barron, and Hogness) 335
Urea solutions, properties (Steinhardt) 543
Hemophilus parainfluenzæ: Coenzyme stability (Kohn) lxxi
Hemorrhage: Anti-, factor, biological assay (Thayer, MacCorquodale, McKee, and Doisy) cxx
Hexoxidase: Complement function, effect (Ecker, Pillemer, Martiensen, and Wertheimer) 359
Histidine: Determination, color stabilization (Thomas) cxxi
Hydriodic acid: Aminosorbitol hydrochloride reduction (Levene and Christman) 77
Hydrogen: Amino acids, stability (Keston and Rittenberg) lxviii
Hydrogen iodide: Glucosaminic acid reduction (Levene and Christman) 83
Hydrogen ion concentration: Biological fluids, determination, glass electrode (Horwitt) lx
Blood, exercise effect (Looney) lxxvi
Papilloma virus protein, stability (Beard and Wyckoff) 461
Hydrogen sulfide: Milk treated with, copper deficiency development (Summerson) cxix
β-Hydroxybutyric acid: Acetoacetic acid reduction to in liver, malonic acid effect (Stark and Cohen) cxv
Hyperparathyroidism: Kidney insufficiency (Highman) lvi
Hypertension: Chemistry (Sullivan) cxix
Hypoglycemia: Autogenous, diabetes (Paul and Gibson) xci

I

Inanition: Pyruvic acid metabolism (Lipschitz, Potter, and Elvehjem) 267

Infant: Urine, sulfanilamide secretion (Hepburn, Paxson, and Rogers) liv
Inositol: Oxidation products, oxidation-reduction potentials (Preisler, Hill, Ronzoni, and Young) xcv
Insulin: Pancreas antagonism and synergism (Macallum) lxxviii
Intestine: Carbohydrate absorption (Pierce and Haege) xciii
Phospholipid metabolism, rôle, ingested fat effect (Fries, Ruben, Perlman, and Chaikoff) 587
Iodine: Biological materials, determination (McClendon and Bratton) 699
Blood, determination (McClendon and Bratton) 699
(McClendon and Rice) lxxxi
(Strickler and Wilson) cxviii
Pituitary and tissues (Baumann and Metzger) vi
Thyroid substance, microdetermination (Blau) xii
Iodoacetic acid: Amino acids, sulfur-containing, effect (Simon and White) cix
Iron: Dietary, hematopoiesis effect (Day, Stein, and McCollum) xxviii

J

Jaundice: Blood, blood serum phosphatase, effect (Freeman and Chen) 239

K

Ketogenesis: Liver (Cohen and Stark) xxiii
Ketogenic principle: Hypophysis, nature (Shipley) cix
Ketolysis: Carbohydrate action, ketonuria (Deuel, Hallman, and Murray) xxix
Liver (Cohen and Stark) xxiii
Ketonuria: Carbohydrate action, ketolysis effect (Deuel, Hallman, and Murray) xxix
Ketosis: (Deuel, Butts, Hallman, Murray, and Blunden) 257
Kidney: Insufficiency, hyperparathyroidism (Highman) lvi
See also Nephrectomy
Kynurenic acid: Bile, kynurenic acid and *l*- and *dl*-tryptophane administration effect (Correll, Berg, and Cowan) 151
Carnivora, excretion (Jackson) lxiii
Urine, kynurenic acid and *l*- and *dl*-tryptophane administration effect (Correll, Berg, and Cowan) 151

L

Lactalbumin: Reduced, metabolism, cystinuria (Kassell) lxvi
Lactic acid: Bacteria, riboflavin and synthetic flavins, growth effect (Snell and Strong) cxii

Lactic acid—*continued:*
Blood, exercise effect (LOONEY) lxxvi
-Racemizing enzyme, *Clostridium butylicum* (CHRISTENSEN, PETERSON, and JOHNSON) xxi
Lactoflavin: Semiquinone (MICHAELIS and SCHWARZENBACH) lxxxiv
Laparotomy: Blood plasma proteins, effect (CHANUTIN, HORTENSTINE, COLE, and LUDEWIG) 247
Lead: Diet, absorption (HORWITT and COWGILL) lxi
Lecithin: Blood plasma and red blood cells, adults (KIRK) 637
— —, red blood cells, and tissues, microdetermination (KIRK) 623
Linseed: Meal, toxicity (MCCAY and TUNISON) lxxx
Lipase: Pancreas, action (BALLS and MATLACK) 679
Lipid(s): Blood platelets, distribution (ERICKSON, LEE, and WILLIAMS) xxxiv
Chlorine, blood and tissues (CHRISTENSEN and CORLEY) 129
Dietary, milk fat effect (MUELLER and COX) lxxxviii
Fractions, *Bacterium tumefaciens*, chemistry (CHARGAFF) xxi
Liver, fowl (LORENZ, CHAIKOFF, and ENTENMAN) 577
Liver: Acetoacetic acid reduction to β-hydroxybutyric acid in, malonic acid effect (STARK and COHEN) cxv
Liver—*continued:*
Blood plasma proteins, hepatectomy effect (CHANUTIN, HORTENSTINE, COLE, and LUDEWIG) 247
Cirrhosis, liver preparation effect (FORBES) xxxvii
Fat, source (BARRETT, BEST, and RIDOUT) iii
Glycogen, diurnal changes (DEUEL, BUTTS, HALLMAN, MURRAY, and BLUNDEN) 257
—, molecular structure (HASSID and CHAIKOFF) 755
Injury, serum phosphatase activity (BODANSKY) xiv
Ketogenesis and ketolysis (COHEN and STARK) xxiii
Lipids, fowl (LORENZ, CHAIKOFF, and ENTENMAN) 577
Nitrogen, non-protein, metabolism, hepatectomy effect (TRIMBLE and MADDOCK) cxxiii
Proteins, potassium iodate effect (LUCK) lxxvii
Water and electrolytes, growth effect (YANNET and DARROW) 295
Xanthine oxidase, *p*-aminophenol action (BERNHEIM and BERNHEIM) 307

M

Malonic acid: Acetoacetic acid reduction to β-hydroxybutyric acid in liver, effect (STARK and COHEN) cxv
Mammary gland: Proteins (JACKSON and GORTNER) 719

Mannitol: Metabolism (Carr, Forman, and Krantz) xviii

Melanin(s): Ultraspectrographic studies (Spiegel-Adolf) cxiv

Mescaline: Oxidation (Bernheim and Bernheim) 317

Metabolism: Age effect (Dill, Edwards, and Robinson) xxx

Blood plasma protein, injection effect (Daft, Robscheit-Robbins, and Whipple) 87

Carbohydrate, hormone, anterior pituitary, assay (Bergman and Turner) 471

Exercise effect (Dill, Edwards, and Robinson) xxx

Intermediary, nitrogen isotope for study (Schoenheimer, Foster, Rittenberg, and Ratner) cv

Mineral, radioactive isotopes in study (Cohn and Greenberg) 185

Phospholipid, radioactive phosphorus as indicator (Fries, Ruben, Perlman, and Chaikoff) 587

—, stomach and intestine, rôle, ingested fat effect (Fries, Ruben, Perlman, and Chaikoff) 587

Sulfur (Heard and Lewis) 203

Methanol: Detection (Harger, Johnson, and Bridwell) p. 1

Methanol—*continued:*

Determination (Harger, Johnson, and Bridwell) p. 1

Methemoglobin: Determination, photoelectric colorimeter (Evelyn and Malloy) xxxiv

Hemoglobin, reduction, methylene blue (Wendel) cxxiv

Streptococcus viridans, formation (Fishberg and Baum) xxxv

Methionine: Blood plasma cystine, administration effect (Lewis and Brown) lxxv

Cystinuria, administration effect (Andrews, Andrews, and Rutenber) iii

(Hess and Sullivan) lv

Dideutero-, synthesis (Patterson and du Vigneaud) 327

Dietary, hair effect (Heard and Lewis) 203

Growth effect (Heard and Lewis) 203

Methylene blue: Methemoglobin reduction to hemoglobin (Wendel) cxxiv

Milk: Buffer intensity (Whittier) 283

Fat, diet lipids, effect (Mueller and Cox) lxxxviii

Hydrogen sulfide-treated, copper deficiency development (Summerson) cxix

Sulfanilamide secretion (Hepburn, Paxson, and Rogers) liv

Mineral: Metabolism, radioactive isotopes in study (Cohn and Greenberg) 185

Mitochondria: Tumor, vitamin A and (GOERNER and GOERNER) 57
Morphine: Urine, determination (OBERST) lxxxix
Mosaic: Tobacco, virus protein, nucleic acid (LORING) lxxvi
Mucin: Gastric, mucoitin disulfuric acid from (MEYER and SMYTH) lxxxiv
Mucoitin disulfuric acid: Gastric mucin, isolation (MEYER and SMYTH) lxxxiv
Muscle: Anserine, determination (ZAPP) cxxxii
Carnosine, determination (ZAPP) cxxxii
Choline esterase activity, prostigmine effect (STADIE and JONES) cxiv
Creatine, phosphorus and potassium relation (MANGUN and MYERS) lxxix
Glycogen determination (GUEST) xlviii
Smooth, proteins (MEHL) lxxxiii
Water and electrolytes, growth effect (YANNET and DARROW) 295
Myasthenia gravis: Prostigmine effect (STADIE and JONES) cxiv

N

Naphthalene: Dietary, glutathione, growth effect (STEKOL) cxvi
Naphthylamine: β-, metabolism (WILEY) cxxvii
Nephrectomy: Blood plasma cholesterol, effect (LUDEWIG) lxxviii
— — phospholipid phosphorus, effect (LUDEWIG) lxxviii
Body water, effect (CHANUTIN) xx
Nephritis: Uranium, blood guanidine-like substance (WEBER) cxxiv
Nerve: Impulses, choline esterase effect (GLICK) xlii
Neuroproteins: Chemistry (BLOCK) xiii
Nitrogen: Isotope, intermediary metabolism study (SCHOENHEIMER, FOSTER, RITTENBERG, and RATNER) cv
Metabolism, thyroxine and thyrotropic hormone effect (GAEBLER and BARTLETT) xl
Non-protein, metabolism, hepatectomy effect (TRIMBLE and MADDOCK) cxxiii
Protein denaturation, effect (HENDRIX and DENNIS) liii
Nucleic acid: Tobacco mosaic virus protein (LORING) lxxvi
Nucleotide(s): Glycogen phosphorylation, action (CORI, COLOWICK, and CORI) 381
Purine, catabolism, blood glycolysis relation (EILER and ALLEN) 655

O

Octopine: (IRVIN) lxii
Oil(s): Cod liver. *See* Cod liver oil

Oil(s)—*continued:*
Erythematous dermatitis, ingestion effect (SALMON) civ
Halibut viscera, vitamins A and D (PUGSLEY) xcvii
Sable-fish viscera, vitamins A and D (PUGSLEY) xcvii
Vitamin A, adsorption by sodium and potassium soaps (BROCKLESBY and KUCHEL) xvi
Ovary: Estrogen, ketonic (WESTERFELD, MACCORQUODALE, THAYER, and DOISY) cxxvi
Oxidase: Xanthine, liver, *p*-aminophenol action (BERNHEIM and BERNHEIM) 307
Oxidation(s): Biological (BARRON and LYMAN) 229
Oxidation-reduction: Systems, equilibria, spectrophotometric determination (STOTZ, SIDWELL, and HOGNESS) cxviii
Oxygen: Hemoglobin-, equilibrium, salt effect (SIDWELL, MUNCH, BARRON, and HOGNESS) 335
Tissue uptake, avitaminosis (SURE and DEWITT) cxx

P

Pancreas: Insulin antagonism and synergism (MACALLUM) lxxviii
Lipase, action (BALLS and MATLACK) 679
Papilloma: Virus protein, hydrogen ion concentration stability (BEARD and WYCKOFF) 461
Paralysis: Anti-, vitamin, chick (JUKES and BABCOCK) lxv
Pepsin: Amide solutions, properties (STEINHARDT) 543
Crystalline, solubility (STEINHARDT) cxv
Proteins derived by, arginase action (KRAUS-RAGINS) 761
Urea solutions, properties (STEINHARDT) 543
Peptidase: Bacterial, systems, properties (BERGER and JOHNSON) ix
Di-, embryo, cephalic region, chick (LEVY and PALMER) lxxiv
—, — extracts, chick (PALMER and LEVY) xc
Peptide(s): Solution, thermodynamic properties (SMITH) cx
Phenol(s): *p*-Amino-, liver xanthine oxidase, action (BERNHEIM and BERNHEIM) 307
Substituted, dissociation, physiological action, relation (KRAHL) lxxii
Phenylalanine: *dl*-, metabolism (BUTTS, DUNN, and HALLMAN) 711
Phlorhizin: Protein metabolism, effect (HOWLAND and HAWKINS) 99
Phosphatase: Blood serum, jaundiced blood, effect (FREEMAN and CHEN) 239
— —, liver injury, effect (BODANSKY) xiv
Phosphatide: Ether-insoluble, blood plasma and red blood cells, adults (KIRK) 637
—, — —, red blood cells, and tissues, microdetermination (KIRK) 623

Phospho-*d*-arabinose: 5-, synthesis (LEVENE and CHRISTMAN) 607
Phospholipid(s): Blood, adrenalectomy effect (YEAKEL and BLANCHARD) 31
Cephalin determination by choline estimation (WILLIAMS, ERICKSON, AVRIN, BERNSTEIN, and MACY) 111
Metabolism, radioactive phosphorus as indicator (FRIES, RUBEN, PERLMAN, and CHAIKOFF) 587
—, stomach and intestine, rôle, ingested fat effect (FRIES, RUBEN, PERLMAN, and CHAIKOFF) 587
Phosphorus, blood plasma, normal and nephrectomized rats (LUDEWIG) lxxviii
—, radioactive, distribution following administration (HAVEN, BALE, and LEFEVRE) lii
Respiratory quotient, effect (REISER and HANES) ci
Phosphoric acid: Glucose-1-, tissue, mammalian, and yeast extracts, formation (CORI, COLOWICK, and CORI) 375
Phosphorus: Absorption, distribution, and excretion, radioactive phosphorus in study (COHN and GREENBERG) 185
Dietary, hematopoiesis effect (DAY, STEIN, and MCCOLLUM) xxviii
-Low diets, vitamin D_2 effect (SCHNEIDER and STEENBOCK) cv
Phosphorus—*continued:*
Muscle creatine, relation (MANGUN and MYERS) lxxix
Phospholipid, blood plasma, normal and nephrectomized rats (LUDEWIG) lxxviii
Radioactive, distribution following sodium phosphate and phospholipid (HAVEN, BALE, and LEFEVRE) lii
—, phospholipid metabolism indicator (FRIES, RUBEN, PERLMAN, and CHAIKOFF) 587
Photometer: Photoelectric, vitamin A determination (BILLS and WALLENMEYER) xi
Physostigmine: Blood sugar, adrenals, demedullated, effect (HARNED and COLE) li
Pigment: Beet root, red, determination (PUCHER, CURTIS, and VICKERY) 71
— —, —, preparation (PUCHER, CURTIS, and VICKERY) 61
Pilocarpine: Gastric secretion, effect (HOLLANDER and SALTZMAN) lix
Pituitary: Anterior, carbohydrate metabolism hormone, assay (BERGMAN and TURNER) 471
Extract, growth-promoting, thiamine deficiency, effect (BURKE and MCINTYRE) xvii
Hormones, preparation (BATES and RIDDLE) v
Iodine (BAUMANN and METZGER) vi

Pituitary—*continued:*
Ketogenic principle, nature (SHIPLEY) cix
Posterior, preparations, electrophoresis (DU VIGNEAUD, IRVING, DYER, and SEALOCK) 45
—, press-juice, pressor and oxytocic hormones, electrophoresis (IRVING and DU VIGNEAUD) 485
Pneumococcus: Antipneumococcus serum globulins (GREEN) xliv
Polygalitol: Metabolism (CARR, FORMAN, and KRANTZ) xviii
Polyneuritis: Vitamin B_1 determinations, criterion (KLINE, TOLLE, and NELSON) lxix
Poppy: California, petals, eschscholtzxanthin (STRAIN) 425
Porphyrin: Copro-, I, embryo, formation (SCHØNHEYDER) 491
Potassium: Blood plasma, sodium and potassium intake effect (POWER, WILDER, and CUTLER) xciv
Muscle creatine, relation (MANGUN and MYERS) lxxix
Urine, sodium and potassium intake effect (POWER, WILDER, and CUTLER) xciv
Potassium iodate: Liver proteins, effect (LUCK) lxxvii
Potassium salts: Fate, intravenous injection (WINKLER and SMITH) cxxx
Pregnancy: Urine, gonadotropic hormone (GURIN, BACHMAN, and WILSON) xlix
Prolactin: Preparation (BATES and RIDDLE) v
Prostigmine: Muscle choline esterase activity, effect (STADIE and JONES) cxiv
Myasthenia gravis, effect (STADIE and JONES) cxiv
Protein(s): Arginase action (KRAUS-RAGINS) 761
Blood plasma, hepatectomy and laparotomy effect (CHANUTIN, HORTENSTINE, COLE, and LUDEWIG) 247
— —, metabolism, injection effect (DAFT, ROBSCHEIT-ROBBINS, and WHIPPLE) 87
— serum, solubility precipitation patterns (PERLZWEIG, KONDRITZER, and BRUCH) xcii
Brain, amino acids, sex differences (BLOCK) xiii
Chromo-, bacteria, photosynthetic (FRENCH) xxxviii
Denaturation, nitrogen effect (HENDRIX and DENNIS) liii
Egg, salmon, casing (YOUNG and INMAN) cxxxi
Electric mobility and titration curves, molecular radius and weight calculation, relation (MOYER and ABRAMSON) 391
Films, reactions (CLOWES, DAVIS, and KRAHL) xxii
Galactose cataract-producing action, effect (MITCHELL and COOK) lxxxvi
Hydrolysates, tyrosine microdetermination (BERNHART) x
Liver, potassium iodate effect (LUCK) lxxvii

Protein(s)—*continued:*
Mammary gland (JACKSON and GORTNER) 719
Metabolism, phlorhizinized dogs (HOWLAND and HAWKINS) 99
Muscle, smooth (MEHL) lxxxiii
Neuro-, chemistry (BLOCK) xiii
Papilloma virus, hydrogen ion concentration stability (BEARD and WYCKOFF) 461
Pyrrole formation (GUEST and MCFARLANE) xlvii
Solubility (STEINHARDT) cxv
Tobacco, mosaic virus, nucleic acid (LORING) lxxvi
Urine, dielectric constant dispersion (FRIEND, FERRY, and ONCLEY) xxxix
Virus, stream double refraction (LAUFFER and STANLEY) 507
Prothrombin: Purification (SEEGERS, SMITH, WARNER, and BRINKHOUS) 751
Species differences (QUICK) xcix
Pseudoglobulin: Carbohydrate, nature (COGHILL and CREIGHTON) xxiii
Purine(s): Creatine-creatinine metabolism, effect (BEARD and PIZZOLATO) vii
Nucleotides, catabolism, blood glycolysis relation (EILER and ALLEN) 655
Pyridine: Derivatives, black tongue, effect (WOOLLEY, STRONG, and MADDEN) cxxxi
Pyrrole: Proteins, formation (GUEST amd MCFARLANE) xlvii
Pyruvic acid: Metabolism (FLOCK, BOLLMAN, and MANN) xxxvi
—, inanition (LIPSCHITZ, POTTER, and ELVEHJEM) 267
—, vitamin B_1 deficiency (LIPSCHITZ, POTTER, and ELVEHJEM) 267
Oxidation and dismutation (BARRON and LYMAN) iv
Yeast, utilization, aerobic (SMYTHE) cxi

R

Racemase: *Clostridium butylicum* (CHRISTENSEN, PETERSON, and JOHNSON) xxi
Respiratory quotient: Phospholipid ingestion effect (REISER and HANES) ci
Reticulocyte: Hematopoiesis index (ORTEN) lxxxix
Riboflavin: Growth requirement (DAY and DARBY) xxviii
Lactic acid bacteria, growth effect (SNELL and STRONG) cxii
Rice: Polishings, vitamin B complex, fractionation (BOOHER and LOJKIN) xiv
Rickets: Light deficiency, salt solutions, effect (GERSTENBERGER) xli

S

Sable-fish: Viscera oil, vitamins A and D (PUGSLEY) xcvii
Salmon: Egg, casing, protein (YOUNG and INMAN) cxxxi

Salt(s): Hemoglobin-oxygen equilibrium, effect (SIDWELL, MUNCH, BARRON, and HOGNESS) 335
Stratum corneum ζ-potential, effect (WILKERSON) cxxviii
Sarcosine: Raman spectrum (EDSALL) xxxiii
Schizophrenia: Blood gases, hydrogen ion concentration, lactic acid and, exercise effect (LOONEY) lxxvi
Semiquinone: Lactoflavin (MICHAELIS and SCHWARZENBACH) lxxxiv
Sex: Amino acids, brain proteins, effect (BLOCK) xiii
Silkworm: Cuticulin, isolation and analysis (BERGMANN) ix
Skin: Cholesterol, ultraviolet light irradiation, effect (KNUDSON, STURGES, and BRYAN) lxx
Soap(s): Potassium, vitamin A adsorption from oils (BROCKLESBY and KUCHEL) xvi
Sodium, vitamin A adsorption from oils (BROCKLESBY and KUCHEL) xvi
Sodium: Biological fluids, microdetermination, photoelectric (HOFFMAN and OSGOOD) lviii
Blood plasma, sodium and potassium intake effect (POWER, WILDER, and CUTLER) xciv
Urine, sodium and potassium intake effect (POWER, WILDER, and CUTLER) xciv
Sodium hippurate: Toxic effect (GRIFFITH) xlvi
Sodium phosphate: Phosphorus, radioactive, distribution following administration (HAVEN, BALE, and LEFEVRE) lii
Sorbitol: Amino-, hydrochloride, hydriodic acid, reduction (LEVENE and CHRISTMAN) 77
Standing: Filtration process, extremities, effect (KEYS and BUTT) lxviii
Starch(es): Molecular size determination, periodic acid oxidation (CALDWELL and HIXON) 595
Stomach: Glucose fate (HOFFMAN, ABBOTT, KARR, and MILLER) lvii
Phospholipid metabolism, rôle, ingested fat effect (FRIES, RUBEN, PERLMAN, and CHAIKOFF) 587
Secretion, pilocarpine effect (HOLLANDER and SALTZMAN) lix
Stratum corneum: ζ-Potential, salts, effect (WILKERSON) cxxviii
Streptococcus hæmolyticus: β-, diaminodiphenyl sulfide, diaminodiphenyl sulfone, and related compounds, effect (RAIZISS, SEVERAC, MOETSCH, and CLEMENCE) xcix
Streptococcus viridans: Methemoglobin formation (FISHBERG and BAUM) xxxv
Styracitol: Metabolism (CARR, FORMAN, and KRANTZ) xviii
Sucrosuria: (SOBOTKA, REINER, and WEINER) cxii

Sugar: Acids, *d*-glucose, preparation (HART, SHEPPARD, and EVERETT) lii
Sulfanilamide: Milk, secretion (HEPBURN, PAXSON, and ROGERS) liv
Urine, infant, secretion (HEPBURN, PAXSON, and ROGERS) liv
Sulfate(s): Ethereal, blood serum determination, benzidine (POWER and WAKEFIELD) 665
Inorganic, blood serum, determination, benzidine (POWER and WAKEFIELD) 665
Sulfhemoglobin: (MICHEL) lxxxv
Determination, photoelectric colorimeter (EVELYN and MALLOY) xxxiv
Sulfur: -Containing amino acids, growth effect (BRAND) xv
— — —, iodoacetic acid effect (SIMON and WHITE) cix
Metabolism (HEARD and LEWIS) 203

T

Temperature: Body, 1,5-diphenylpyrazoline-3-carboxylic acid effect, environmental temperature influence (SCHULTZ and HILL) cvi
Testosterone: Androgenic substances, excretion effect (DORFMAN) xxx
Tetradeuterohomocystine: Synthesis (PATTERSON and DU VIGNEAUD) 327
Thiamine: Deficiency, growth-promoting pituitary extract, effect (BURKE and MCINTYRE) xvii
Thrombin: Species differences (QUICK) xcix
Thromboplastin: Species differences (QUICK) xcix
Thyroid: Iodine microdetermination (BLAU) xii
Thyrotropic hormone: Body weight effect (GAEBLER and BARTLETT) xl
Nitrogen metabolism, effect (GAEBLER and BARTLETT) xl
Thyroxine: Body weight effect (GAEBLER and BARTLETT) xl
Nitrogen metabolism, effect (GAEBLER and BARTLETT) xl
Tissue(s): Adrenal insufficiency, effect (DARROW and HARRISON) xxvii
Lipid chlorine (CHRISTENSEN and CORLEY) 129
Mammalian, extracts, glucose-1-phosphoric acid formation (CORI, COLOWICK, and CORI) 375
Tobacco: Mosaic virus protein, nucleic acid (LORING) lxxvi
Tooth: Candy, acidified, effect (WEST and JUDY) cxxv
Trichinosis: Blood chemistry (PIERCE and HARTMAN) xciv
Trypsin: Proteins derived by, arginase action (KRAUS-RAGINS) 761

Tryptophane: *d-* and *dl*-Amino-N-methyl-, growth availability (GORDON) xliii
Amino-N-methyl-, synthesis and configurational relationships (CAHILL and JACKSON) xviii
dl-, kynurenic acid, bile and urine, administration effect (CORRELL, BERG, and COWAN) 151
l-, kynurenic acid, bile and urine, administration effect (CORRELL, BERG, and COWAN) 151
Metabolism (CORRELL, BERG, and COWAN) 151
Tumor(s): Mitochondria, vitamin A and (GOERNER and GOERNER) 57
Tissue, cholesterol, ultraviolet light irradiation, effect (KNUDSON, STURGES, and BRYAN) lxx
Vitamin E relation (CARRUTHERS) xix
Tyrosine: *dl-*, metabolism (BUTTS, DUNN, and HALLMAN) 711
Protein hydrolysates, microdetermination (BERNHART) x

U

Ultraviolet light: Cholesterol, skin, blood, and tumor tissue, effect (KNUDSON, STURGES, and BRYAN) lxx
Uranium: Nephritis, blood guanidine-like substance (WEBER) cxxiv
Urea: Solutions, hemoglobin and pepsin properties (STEINHARDT) 543
Urease: Crystalline, oxidation effect (PILLEMER, ECKER, MYERS, and MUNTWYLER) 365
—, radiant energy effect (PILLEMER, ECKER, MYERS, and MUNTWYLER) 365
Urine: Androgenic material, inactive (MCCULLAGH, OSBORN, and OSGARD) lxxxi
Androgens, inactive, nature (PETERSON, HOSKINS, COFFMAN, and KOCH) xciii
Constituents, unidentified, buffer action (KUYPER) 409
Estrogens (WILSON, STRICKLER, and MCELLROY) cxxix
Gonadotropic hormone, pregnancy (GURIN, BACHMAN, and WILSON) xlix
Infant, sulfanilamide secretion (HEPBURN, PAXSON, and ROGERS) liv
Morphine determination (OBERST) lxxxix
Uronic acid: Methyl esters, glucose, gentiobiose, and cellobiose acetyl derivatives, molecular rotations, relationship (GOEBEL and REEVES) xlii

V

Vegetable(s): Carbohydrate metabolism factor, boiling effect (WESSON) cxxv
Virus: Protein, papilloma, hydrogen ion concentration stability (BEARD and WYCKOFF) 461
Proteins, stream double refraction (LAUFFER and STANLEY) 507

Virus—*continued:*
Tobacco mosaic protein, nucleic acid (LORING) lxxvi
Vitamin(s): A adsorption from oils, sodium and potassium soaps (BROCKLESBY and KUCHEL) xvi
— determination, photoelectric colorimeter (DANN and EVELYN) xxvi
— —, — photometer (BILLS and WALLENMEYER) xi
—, halibut viscera (PUGSLEY) xcvii
—, sable-fish viscera (PUGSLEY) xcvii
—, tumor mitochondria (GOERNER and GOERNER) 57
Antiparalytic, chick (JUKES and BABCOCK) lxv
B complex, fractionation, rice polishings (BOOHER and LOJKIN) xiv
B_1 deficiency, pyruvic acid metabolism (LIPSCHITZ, POTTER, and ELVEHJEM) 267
— determination, chemical (MELNICK and FIELD) lxxxiii
— —, polyneuritis as criterion (KLINE, TOLLE, and NELSON) lxix
—, enzyme reactions, interaction (TAUBER) 499
—, growth requirement, diet fat relation (STIRN and ARNOLD) cxvii
B_6 deficiency, dietary oils, effect (SALMON) civ
C, determination as furfural from dehydroascorbic acid derivative (ROE) ciii
D, halibut viscera (PUGSLEY) xcvii
—, new, cod liver oil (BILLS, MASSENGALE, HICKMAN, and GRAY) x
—, sable-fish viscera (PUGSLEY) xcvii
D_2, phosphorus-low diets, effect (SCHNEIDER and STEENBOCK) cv
E, tumors, relation (CARRUTHERS) xix
K, biological assay (THAYER, MACCORQUODALE, MCKEE, and DOISY) cxx
See also Avitaminosis

W

Water: Body, nephrectomy effect (CHANUTIN) xx
Electrolytes and, brain, liver, and muscle, growth effect (YANNET and DARROW) 295
Heavy, amylase formation, barley, influence (CALDWELL and DOEBBELING) 479
Wool: Enzyme hydrolysis (ROUTH) civ

X

Xanthin: Eschscholtz-, poppy, California, petals (STRAIN) 425
Xanthine: Oxidase, liver, *p*-aminophenol action (BERNHEIM and BERNHEIM) 307

Xanthophyll: Poppy, California, petals (STRAIN) 425
Xylulose: *l*-, metabolism (LARSON, BLATHERWICK, BRADSHAW, EWING, and SAWYER) lxxiii

Y

Yeast: Extract, glucose-1-phosphoric acid formation (CORI, COLOWICK, and CORI) 375
Pyruvic acid utilization, aerobic (SMYTHE) cxi